

3RD ANNUAL INDOOR GROW SPECIAL

HIGH TIMES

HIGH TIMES

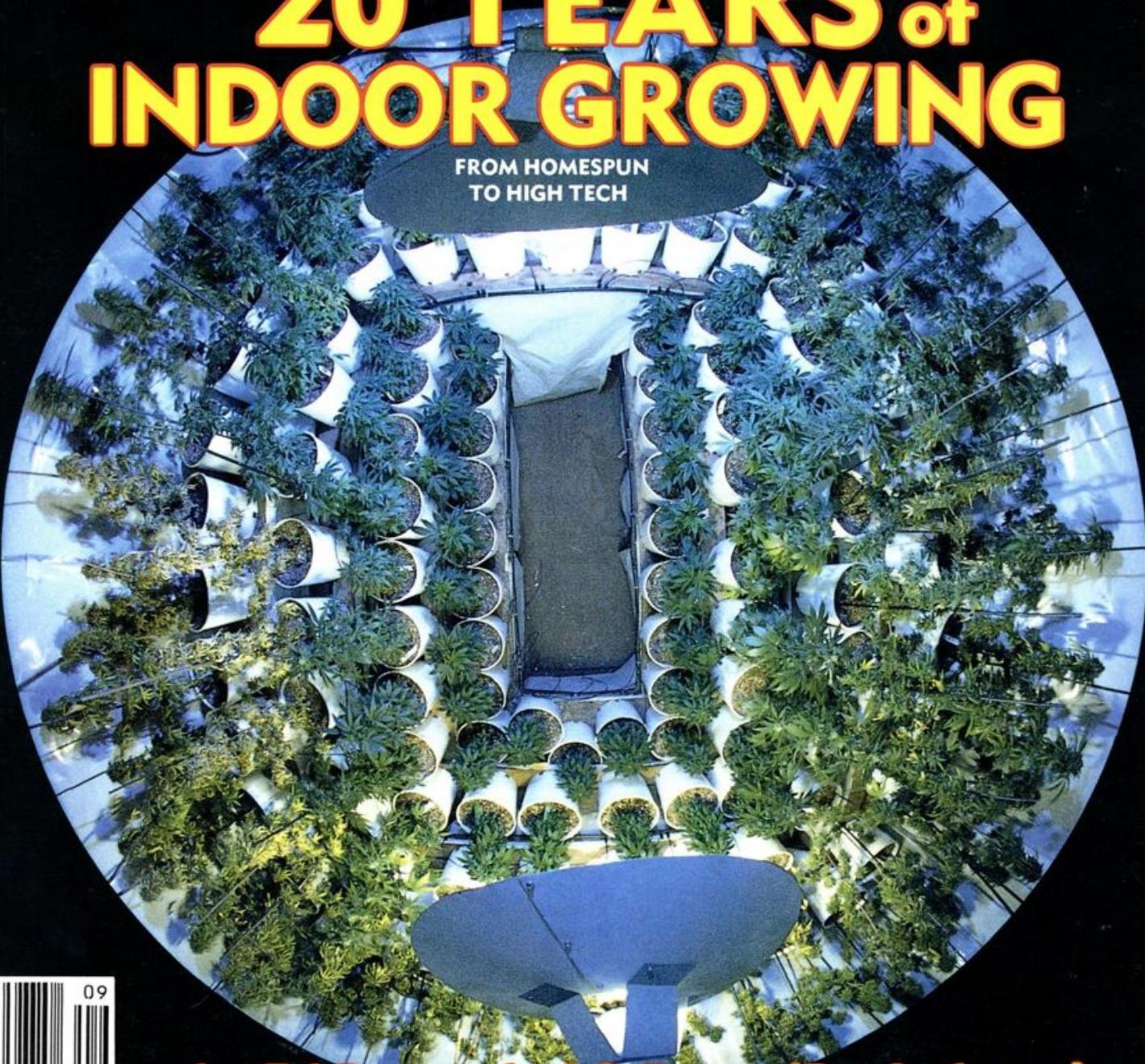
SEPTEMBER 1988

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by Ed Rosenthal & Bram (Dr. Indoors)

Indoor Sun

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All systems include assembled ballast, bulb, reflector, 15' lamp cord & 8' power cord.

- ★ 1000 watt DELUXE—Your choice of one of four great reflectors:
46" Polished aluminum super reflective hood (white available on request). □ Our new 20" low profile (only 7" high) horizontal reflector with a space-age polished aluminum reflective panel (puts out 45% more light than conventional reflectors). □ 48" parabolic, high output reflective hood. □ 20° adjustable white enamel reflector.
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- ★ 400 watt DELUXE—14" high temp, white enamel reflector. Ventilated ballast box with a high quality 6-outlet power supply with a lighted on/off switch and a 15 amp circuit breaker. System includes a 34,000 lumen—20,000 hr. bulb \$134.50
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To upgrade to our 40,000 lumen—20,000 hr. Horticultural Superbulb Add \$10.00
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- ★ 175 watt MINI-MIGHT METAL HALIDE—15" reflector with self-contained ballast. 15,000 lumen—20,000 hr. bulb (only 18c/day to operate) \$99.00

HIGH PRESSURE SODIUM—(red orange spectrum)

Completely assembled. All systems include a covered ventilated ballast, bulb, reflector, 15' lamp cord and 8' power cord.

- ★ 1000 watt DELUXE—Your choice of one of four great reflectors (5 KV pulse rated socket included): □ 46" Polished aluminum super reflective hood (white available on request) —Our new 20" low profile (only 7" high) horizontal reflector with a space-age polished aluminum reflective panel (puts out 45% more light than conventional reflectors) □ 48" parabolic, high output reflective hood □ 20° adjustable white enamel reflector □ System includes a 140,000 lumen—24,000 hr. Sodium bulb \$269.50
- ★ 400 watt DELUXE—14" high temp, white enamel reflector. Includes 50,000 lumen—24,000 hr. Sodium bulb \$189.50
- ★ MINI-MIGHT GROW LIGHT—Our compact powerful (16,000 lumens) grow light employs a highly efficient High Pressure Sodium lamp (3 year bulb life) and a self-contained Transformer-Ignitor. Costs only 15¢ a day (18 hours on) or about \$4.50/month to operate. 15" reflector—good for 3'x3' area. Sale priced at \$99.00+\$5.00 shipping, anywhere in U.S.A. \$99.00

LOW PRESSURE SODIUM—(our most efficient light)

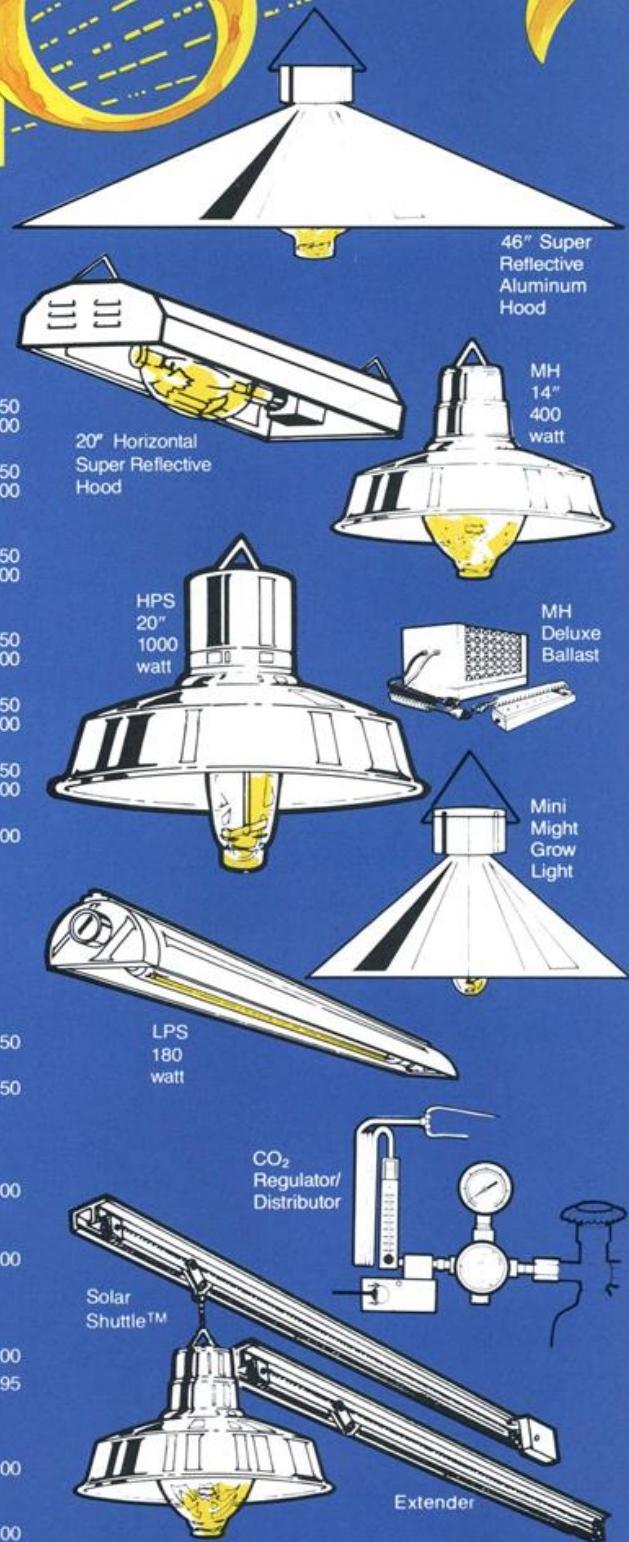
- ★ 180 watts produce 33,000 lumens. Great for flowering. Excellent for side light. Deluxe fixture. Ventilated ballast box \$195.00

ACCESSORIES:

Replacement light bulbs available for all our systems at our low everyday prices.

- ★ High Pressure Sodium Conversion Bulbs that work in metal halide ballasts.
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- ★ 15 amp Paragon timer (works on all our systems) \$14.95
- ★ CO₂ Regulator/Distributor —Maintains CO₂ at a constant level while the light is on to promote up to 25% increase in growth. For growing areas 25 sq. ft. to 1000 sq. ft. Includes all gauges and distribution lines. Plugs into your light's timer (tank not included) Sale Priced \$139.00
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TOTAL

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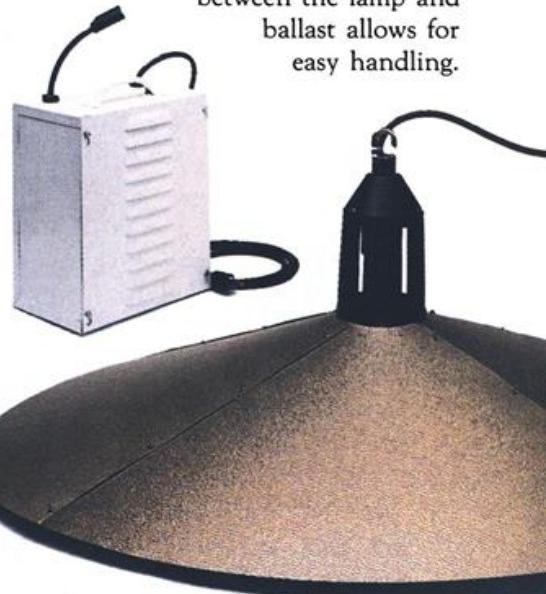
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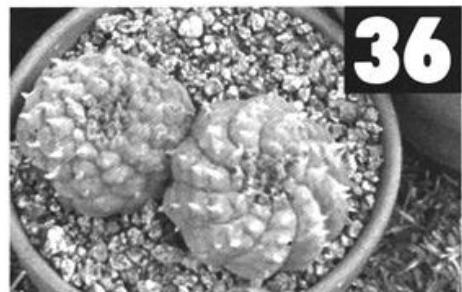
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The Reagan years are winding down. But the eight years of institutionalized insanity which we have experienced will affect the lives of everyone on the planet for years to come. At HIGH TIMES we tend to focus on the "War On Drugs". This bitter, quack medicine has been forced on an unwilling patient. The "War On Drugs" is really a battle against the American people and the US Constitution.

Reagan and his lackeys have attacked every aspect of life which progressive people have thought important. To name just a few:

1.) **The Environment**-Attacks on clean air and water. Proposals to tear up the National Parks. Destroying National Forests by excessive lumbering. No action on acid-rain.

2.) **Balance of Trade**-In 8 years the US has gone from the biggest creditor nation to the largest debtor nation in the world. The US is incurring debts that our children will have to service. In the meantime, we are indebted to international bankers.

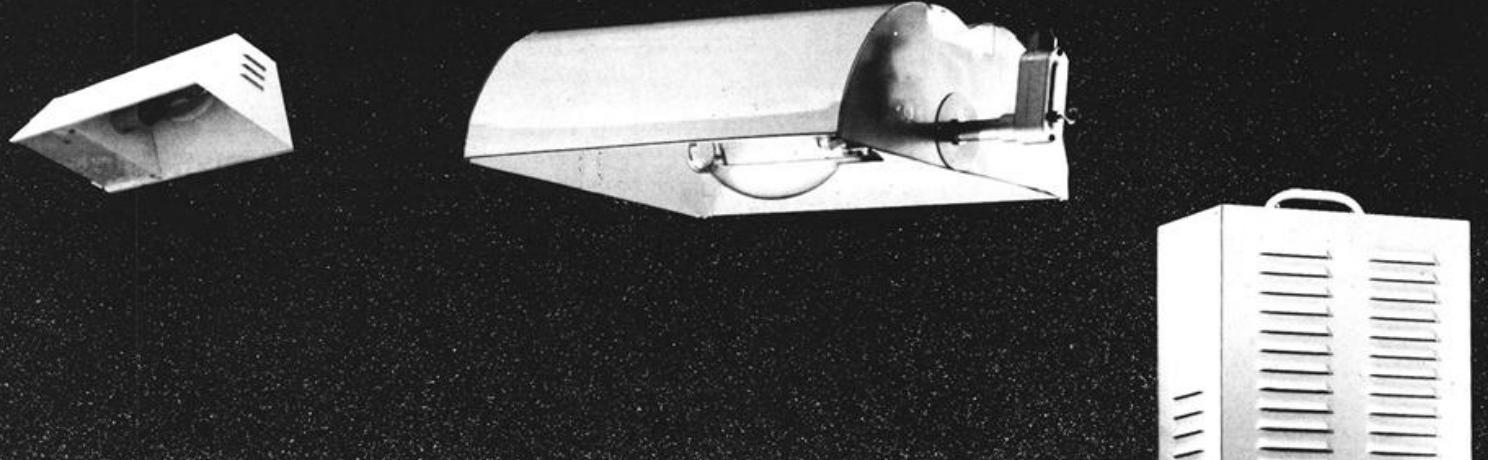
3.) **Society**-The Administration has opposed every piece of legislation designed to promote harmony and equality in America. Women's rights, civil rights, medical care, services for the poor, disabled and elderly, have no part in Reagan's America. Homelessness has become a fact of life in this country.

4.) **Education**-Federal government outlays for primary, secondary and college education have been cut way back. Loans to student programs have been curtailed.

5.) **Research**-The key to the US's strength has always been its advanced technology. Most other western countries support research, which of course leads to industrial output. In the US almost all research appropriations go to fund military research.

There are still people who want to continue his policies. This can be the autumn in which we return to sanity. You can do your part. So, first step—REGISTER TO VOTE. You cannot vote in the election unless you are registered and your country needs your vote.

—The Editors



THE FACTS ARE IN HAMILTON'S GROW LIGHTS ARE THE NEW #1 IN THE U.S.A.

A good grow light is the key to indoor growing success

It is well known that Metal Halide and High Pressure Sodium full spectrum lights, especially in a horizontal reflector system, are the best lights to promote good plant growth and to increase bud and flower production.

Fluorescent lights are too weak and too inefficient to supply enough light for budding and flowering (as in PHOTOTRON). Ten 40-watt fluorescent tubes (400 watts) would give only a fraction of the light intensity of a 400 watt Metal Halide or High Pressure Sodium Lamp and would be too costly, would require too much electricity, and would give mediocre results.

How to get maximum light output

Hamilton's aerospace design staff engineer has perfected the ultimate horizontal reflector: MAX 89. The unique double arc "v" design and the super reflective finish of Max 89 give a remarkable 89% increase in light output over vertical mounted lights. Max 89's ventilation design assures a long life for your grow light bulb without undue light loss. Every Max 89 has an adjustment feature which allows you to regulate light to meet the requirements of your growing area with either more concentrated or more diffused light. Max 89 has a low profile design that actually leaves more vertical space for plant growth.

Percentage of light increase in the two leading Horizontal Systems

Hamilton Technology Max 89™	89%
Mini-Horizontal	68%

Mini-Horizontal MH 175 or HPS 150

Compact (built-in ballast), economical, yet powerful. Ideal for small growing areas, side lighting, seed starting and cuttings only \$95.00

How to get highest quality products

Hamilton products are constructed of the highest quality components; our design engineer insists on excellence at every step. All UL approved ballast components are mounted on a heavy 14 gauge steel panel with strong studs to insure whisper-quiet performance and durability. The single heavy panel acts as an excellent heat dissipator, unlike thin, double-walled heat traps that vibrate and echo irritating noise. The 3-way, 38 bi-level louver design gives the ballast maximum cooling air flow for longer ballast life. These louvers give better protection against water splash and dirt entry than screen or slot type systems. Our ballasts come with a rust protective electro-white finish which also reflects light.

Comparison of Ballast Enclosure Design

Hamilton Technology

38 bi-level louvers, 3-way

Competitor A

12 louvers

Competitor B

12 louvers

Competitor C

11 louvers

Competitor D (slot type, not louvered)

Source: Manufacturer's 7/1988 Products

Better safe than sorry

Many poorly designed lighting systems become fire hazards with increased use. Hamilton uses UL approved heavy-duty, high temperature resistant lamp cords and connectors. Our lamp cords are not only 220° F./600 volt but have an "STO" safety and durability designation. For utmost safety, lamp cords are connected 4" away from the socket through a protective conduit and junction box to prevent fire from lamp heat build up. Our Metal Halide 1000 Deluxe System includes a 15 amp protective circuit breaker with an on/off control switch.

Best value at Hamilton

Hamilton offers you quality products at the lowest prices. Why pay inflated prices for inferior products? Order from our large selection of light and hydroponic systems on Page 12 of this issue. Now compare prices and save with Hamilton:

Metal Halide 1000w from \$139.95 to \$179.95

Metal Halide 400w Deluxe - \$124.50

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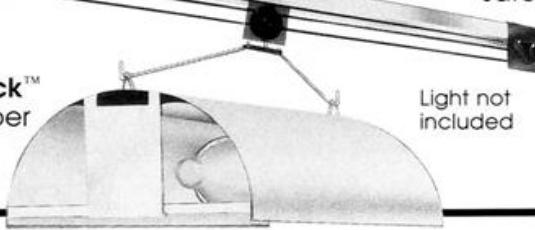


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The Hydrofarm Light Track™
FASTER! 20% more laps per lighting cycle.

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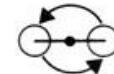
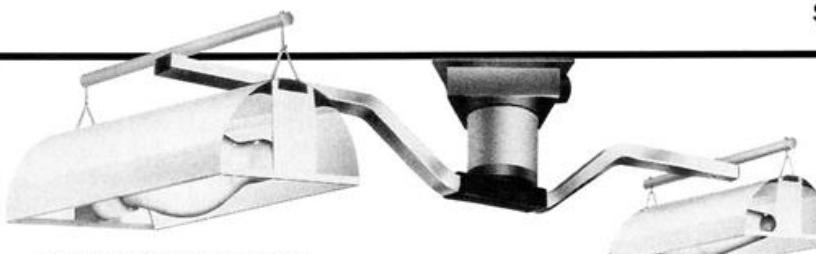
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- Weak one wheel carrier
- One year guarantee only

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One-arm Sun Circle **\$139.95**

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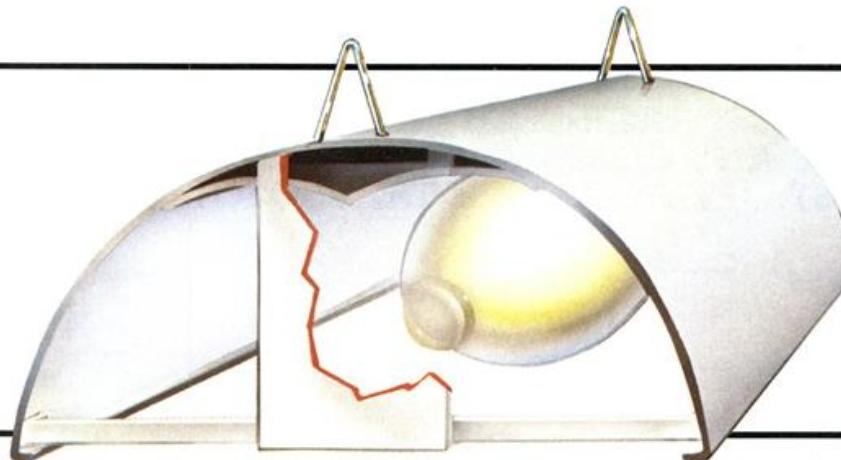
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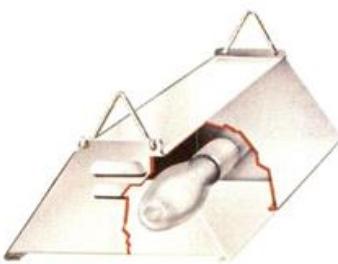
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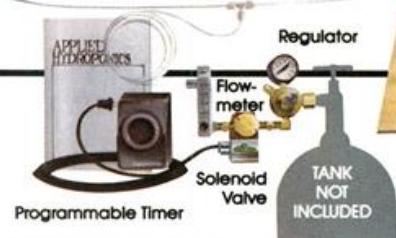
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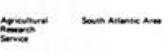
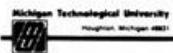
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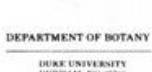
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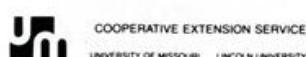
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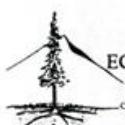
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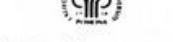
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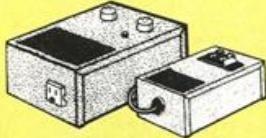
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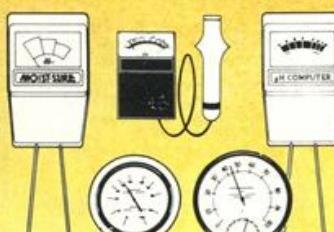


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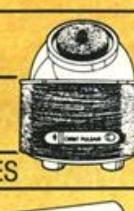
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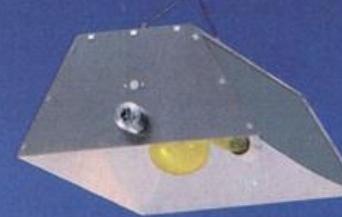
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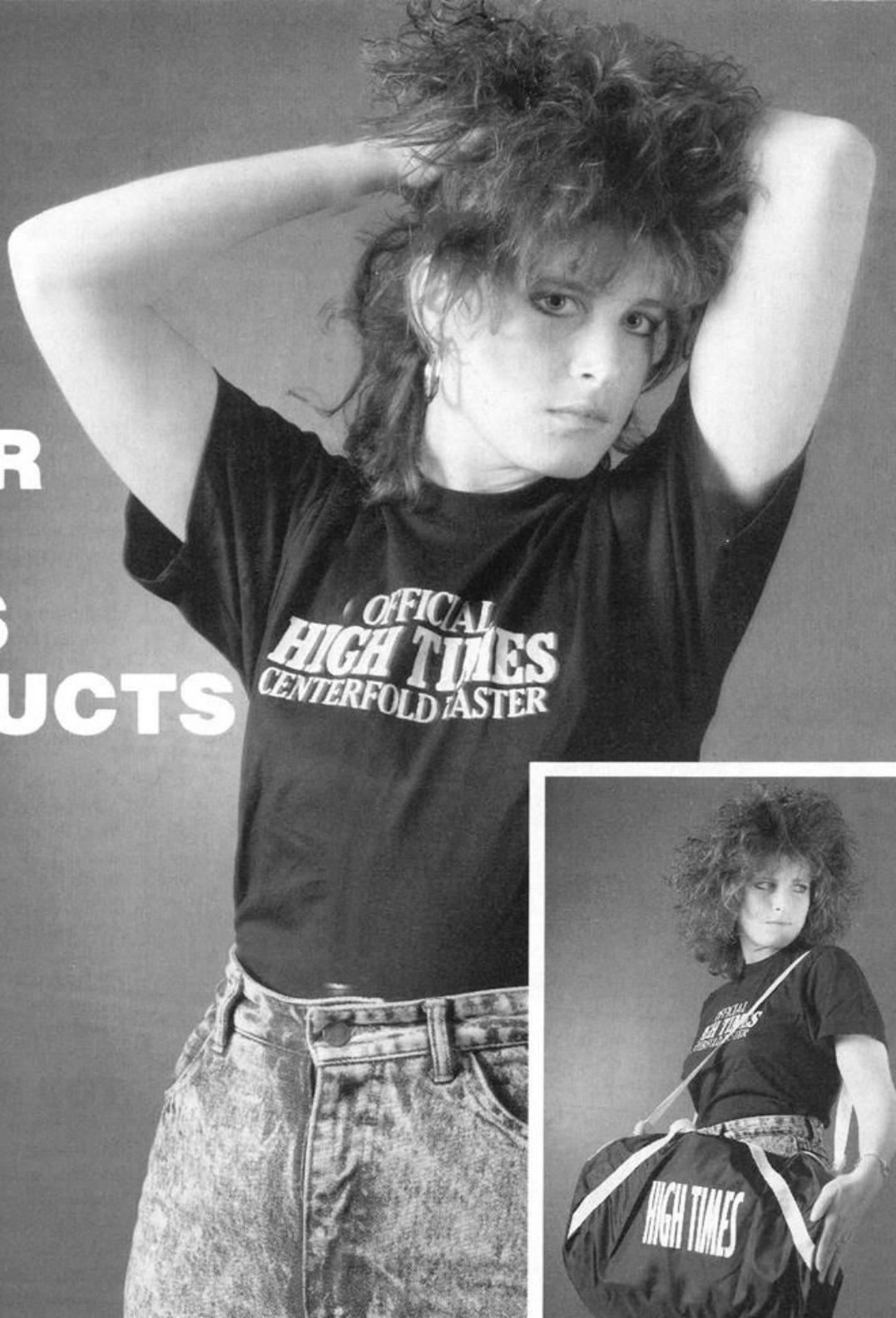


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JOHN EDER

LETTERS



Your magazine is excellent, even though it is as much a guide for narcs as it is for growers. What I am wondering is why the constant YIP/YUP debate? It has been written in *High in America*, the true story of NORML and the politics of marijuana by Patrick Anderson, that the late, great Tom Forcade often struggled between the dual roles of outlaw entrepreneur and Yippie activist. There are plenty of Yup smokers, like my boss who loves my *indica*. Obviously, you people are making some money off your mag, as are the growers and dealers everywhere. Let's remember that there is absolutely nothing wrong with making an illegal buck or two.

Long live ganja!

—Raoh!

Somewhere in Pennsylvania

COKE VS. POT

As a NORML member I was horrified to read Jon Gettman's anti-freedom perspectives on cocaine use (HIGH TIMES, June '88, page 23). Sure, it would be great to have legal pot, but let's not trade in our unalienable right of the

pursuit of happiness for it. If the devil had created America's drug policy, it could hardly have been more insane. Nicotine is as addictive as cocaine and heroin, and smoking contributes to over 320,000 deaths per year. Alcohol, which is also addictive for 18 million Americans, kills 125,000 each year. Compare that to 4,000 deaths per year for all illicit drugs. All HIGH TIMES readers who care about this issue should write Jon and encourage him to rethink his position.

—Bob Sheaks
Irving, Texas

Gettman is misguided. Fighting cocaine will not gather us support. Cocaine will meet Gettman's test of safety if it is made available as coca tea, wine or cola. Nevertheless, NORML should not advocate the jailing and harassment of those who use illegal recreational drugs besides marijuana.

—The Dedicated
Manhattan, New York

"No" to Gettman's call to fight cocaine. Appeasing the government's illegal drug war will not work. How can one give a

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blanket condemnation of cocaine while sanctioning nicotine? Please don't advocate the jailing of HIGH TIMES readers who do coke in order to buy the support of our enemies.

—The Boys From Company C
Long Island, New York

I'm ready to fight against cocaine use in exchange for the legalization of marijuana. But everyone needs to join NORML now! I am!

—Pot and Peace
Manhattan Beach, California

Gettman is fucked! Cocaine is not the answer! We heads need to stick together or we will all hang separately! Bring back Keith Stroup! That man is my hero!

—Billy Blow
Westchester, New York

Thank you for neither catering to or glamorizing the cocaine underground. I lived through the perils of cocaine use and abuse, and have a lot of empathy for those involved with the drug. It is about time people realize coke gives you three choices: quit, die, or go to jail. Take the cocaine back to South America, and give us back pot!

—Bud Peters
Wilmington, Delaware

TOP 100

I recommend focusing more attention on the intellectual side of drug use to appeal to the upscale market. The crude comics and similarly crude Top 100-type features should be cut back, even at the risk of losing a few readers. For example, this item appeared in the June Top 100: "1. Slitting narc's throat, 2. Cutting off narc's cock and balls, 3. Waving bye-bye as narc fades to black." While this certainly expresses the feelings of some HIGH TIMES readers, it gives a bad image to the typical drug user. Most of your readers would be appalled at the notion of murder and mutilation.

—P.S.
Highland, California

Do you guys have an explanation for the "Free Charles Manson" in the Top 100? I'm 30 years old, old enough to know that if he's guilty as charged, then his

continued on page 58

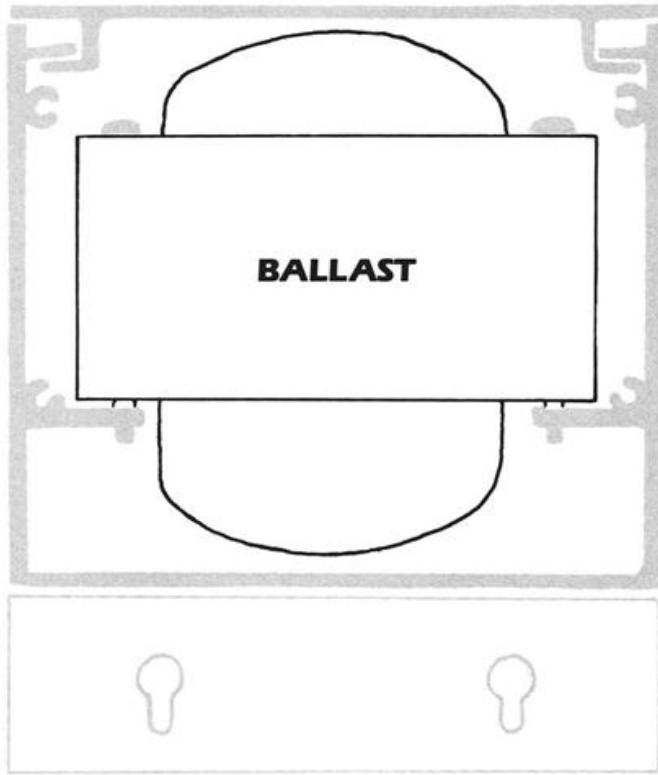
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PIONEERS IN THE MODERN ERA OF RESEARCH ON THE MINERAL NUTRITION OF PLANTS...ONE OF THEM WILL CHANGE YOUR LIFE



LUTHER BURBANK lived from 1849 to 1926, and not before or since has there been a greater contributor to plant development. Every domesticated fruit or vegetable or flower has been produced by Mr. Burbank directly or by his methodology.

Mr. Burbank's methodology was extremely simple: (1) First he would GATHER the most extensive seed stock of a particular species from all over the world. (2) Then he would PLANT all of the seeds closely together. From the resulting ten thousand plants, he would (3) SELECT one or two that had the most pronounced characteristic of size or shape or scent or color or whatever he was looking for. (4) From those one or two plants, all of the seeds were PLANTED and from the resulting ten thousand plants, only one or two would be (5) SELECTED that further developed more of the desired characteristic. This process of planting and selection would be repeated as often as necessary from a few generations to hundreds of generations until Mr. Burbank would release the final seed stock to the rest of the world.

Mr. Burbank grafted one hundred different types of apple branches onto a single apple tree and each branch bore a completely different fruit the first year for his personal selection. Inventing this grafting technique, he squeezed thousands of years of research into a few. The results of his work, from potatoes to apples to EVERY domesticated fruit, vegetable or flower, are what we grow today.

The Burbank Potatoe Quadrupled World Production in One Year. Luther Burbank never needed a lot of space. In his lifetime he conducted over one hundred thousand series of experiments and changed the world on less than three acres of land.



DENNIS ROBERT HOAGLAND, 1888-1949, was the inventor of the "four salt Hoagland solution" from which all HYDROPONICS are based. Although a brilliant botanist, Dr. Hoagland was interested in only one thing, the BIO-MASS (size and weight) of the TOMATO produced hydroponically. Working under the scientific assumptions of the early 1900s, Dr. Hoagland's world assumed four things:

A. Plants had a life cycle leading to death. WE NOW KNOW plants have a very different way of achieving a life and death cycle than does the human being. Humans are more genetically structured toward their life and death cycle than plants. Plants allow environmental factors more control over their life and death cycle as well as with their sex. Such things as (1) "PHOTO-PERIOD" (length of time under light and dark), (2) "THERMO-PERIOD" (length of time under temperature variation), and most importantly (3) "NUTRIENT PERIOD" (length of time under a given nutrient configuration) were studied.)

B. Maximum SIZE and WEIGHT before death of (a) root, (b) shoot, (c) fruit — known as the "root to shoot to fruit ratio" — was the absolute goal. WE NOW KNOW much more about the root to shoot to fruit ratio. While keeping the fruit exactly the same size as normal, both the root (below the soil) and the shoot (above the soil) can be minimized. And by reducing the inter-nodal lengths (distance between the budding sites from an average of 6 inches to less than 1 inch), the number of normal sized fruit can increase up to thousands per plant depending on the plant type.

C. Plant "lush feeding" of excess nutrients meant nothing. WE NOW KNOW plant "lush feeding" kills the plant. The basis of the hydroponic method is that a fresh nutrient supply be pumped in while the used nutrient supply drains out. This allows the plant to absorb, for example, excess amounts of calcium. If allowed, the plant will absorb 10 times what it requires of calcium to the exclusion of other more beneficial nutrients like N, P, K, Mg, Na, Cl, etc. Too much calcium and the plant gets GARDENING OF THE ARTERIES and dies after one seasonal growth period.

D. An aqueous (water) based system without a "buffer" (soil having a cation exchange capacity, C.E.C.) was best. WE NOW KNOW an aqueous (water based nutrient solution surrounding the root system without a "buffer" to protect the roots creates a "water root" — a thick, fleshy root that has layered itself with "fat" to protect itself. Nowhere near the amount of root surface area is produced hydroponically (water based) as when the roots are buffered against excess concentrations by a soil medium.

WE NOW KNOW that the soil mediums used by Dr. Hoagland, such as perlite, vermiculite, and sand have no buffering action or "CATION EXCHANGE CAPACITY" (C.E.C.). The CATION EXCHANGE CAPACITY of a soil medium is the ability of that medium to ABSORB AND RELEASE a nutrient solution. The cation exchange capacity of the soil medium protects the root system and allows it to produce thousands more root structures, thus producing thousands more square inches of root surface area. The greater the root surface area, the more efficient the nutrient uptake for faster growth.

The early 1900s did not have the advanced technology or today. Equipment for testing nutrient solutions and plant tissue such as the gas-liquid chromatographic assay (GLC), thin-layer chromatographic assay (TLC) and sophisticated atomic absorption equipment were not available.

With the aid of the computer since 1951, the medical profession by comparison has advanced in the last 30 years more than in the preceding 2,000 years. If Dennis Robert Hoagland had access to 1986 technology in 1920, he probably would have re-designed the hydroponic system.



JEFFERY JULIAN DEMARCO, 1951-_____, is President and founder of PYRAPONIC INDUSTRIES and is the inventor of the methodology known as GROWING PLANTS PYRAPONIMETRICALLY and the PHOTOTRON.

Three things are required to grow plants pyraponimetrically: 1. A laboratory grade growth chamber known as the PHOTOTRON. 2. A specific METHODOLOGY for plant growth and manipulation (instructions). 3. A very specific NUTRIENT SUPPLY COMPUTER DESIGNED IN PARTS PER MILLION (PPM) for each individual PHOTOTRON. The exact nutrient calibrations are individually calibrated based upon two soil samples taken from the phototron: one after FORTY-FIVE DAYS of plant growth and one after 90 DAYS of plant growth — ONLY TWO ARE REQUIRED.

Mr. DeMarco's Masters thesis was on the cannabinoid profile of marijuana. After working under both federal and state license in a laboratory at a major university for over two years, and since 1976 has developed the phototron, the methodology and the chemistry to study the internal workings of the plant (not just the SIZE and WEIGHT, but utmostly important to study the MOLECULAR and PHARMACOLOGIC properties of the plant). The research developed in pursuit of Mr. DeMarco's research PERTAINS TO ANY PLANT.

Pharmacognosy is the study of molecules produced inside plants. This type of study requires very sophisticated equipment like the Gas-Liquid Chromatogram (GLC), Thin-Layer Chromatogram (TLC) and Atomic Absorption.

THC-delta 9, the psychoactive molecule produced by the marijuana plant, is so microscopic that 100,000 molecules fit end to end would sit on the head of a pin. When you're concerned about growing structures so infinitely tiny, what difference does the size of the plant make?

In the disciplines of Botany, Horticulture, Plant Physiology, Soil Chemistry and Floraculture, a "root to shoot to fruit" ratio requires a large root and a large shoot to grow large fruit.

Growing plants Pyraponimetrically (by exactly measuring all 21 environmental elements), requires the plant to produce minimal root, minimal shoot (inter-nodal lengths) and maximize the number of budding sites and size of the bud, flower or fruit.

To develop the (A) PHOTOTRON, (B) the CHEMISTRY and (C) the plant manipulation methodology known as GROWING PLANTS PYRAPONIMETRICALLY, the marijuana plant was used because of its unique properties.

The PHOTOTRON was designed to: (1) GROW 6 PLANTS THREE FEET TALL IN 45 DAYS; (2) Duplicate exactly the quality of the plant material the seed came from; (3) RE-FLOWER AND RE-BUD PLANT MATERIAL EVERY 45 DAYS UP TO 9 TIMES PER YEAR; (4) NEVER KILLING THE PLANTS, YEAR AFTER YEAR; (5) BE REMOVED FROM EVERY DAY. (The system is designed for plant removal, not containment); and (6) To produce 6-8 ounces of plant material every 45 days.

Growing Plants Pyraponimetrically will revolutionize indoor plant production as we know it today. At PYRAPONIC LABORATORIES, over 75 PHOTOTRONS are used for new experiments. To date, PYRAPONIC LABORATORIES have successfully catalogued 17 varieties of flowering plants, 14 varieties of fruits and vegetables, 8 varieties of tobacco and will force flower roses 365 days per year.

PHOTOTRON

IF YOU ROLL YOUR OWN, GROW YOUR OWN WITH STATE OF THE ART HORTICULTURAL TECHNOLOGY

My name is Jeffery DeMarco, president and founder of Pyraponic Industries. My master's thesis concerned the cannabinoid profile of marijuana. The knowledge gained through this research and experimentation can now be applied to the growing of any herbaceous plant from mint and basil, to roses and tobacco.

In pursuit of this master's thesis, I first had to generate the world's most extensive, nonacademic library on the subject. Second, I assembled the most extensive, scientific bibliography ever created. Then, I went into the laboratory at a major university while under federal license, and designed the most sophisticated laboratory grade growing chamber in the world called the PHOTOTRON and the methodology "Growing Plants Pyraponimetrically".

The Phototron is not presented to the public as a piece of paraphernalia intended for the unlawful production of marijuana. The system was designed to grow any plant. The private cultivation of marijuana has been illegal under numerous state and federal laws since 1936. Marijuana can only be grown legally with a federal license. I worked under such a license at the time I was engaged in my research. Pyraponic Industries will never knowingly sell products to anyone expressing the intent to produce illicit substances.

If you were to research indoor plant growing techniques, as I did, a similarity soon becomes apparent. Every system before the Phototron has attempted to duplicate a tropical climate, such as Hawaii's, in a confined area. I suggest that when you finally achieve the re-creation of Hawaii, you can do no better than Hawaii's results.

In fact you will grow the plant six (6) to nine (9) months with an average six (6) inch internodal length, (the distance between fruiting sites). That will produce a fruiting ratio at the tops of the plant equal to only ten percent (10%). Ninety percent (90%) of the plant material is unusable and the plants are killed off after harvest in preparation for planting the next crop.

Number one, the only thing I am waiting nine (9) months for is a baby. Number two, I don't want a tree growing in my home. Number three, I am not going to pay the electric bill to artificially reproduce the sun. That is why I made my system so revolutionary. The Phototron measures only 36 inches tall by 18 inches wide. Its potential is deceptively masked by the simplicity of functional design and compact size.

On average, the Phototron draws only \$4.00 per month in electricity. I guarantee you will grow six (6) plants, three (3) feet tall in forty-five (45) days, while maintaining a one (1) inch internodal length. I guarantee that in your Phototron each of your six plants will produce over one thousand (1000) fruiting sites from top to bottom. Mine is the only system in the world which will allow you to reflower and refruit the same plants every forty-five (45) days. You will remove from the system everyday. Beginning on DAY 20 after seed germination an average of six (6) to eight (8) ounces of plant material, such as tobacco can be harvested every forty-five days.

Please, do not allow the technical sounding nature of the Phototron scare you away. I personally service back and guarantee each unit sold. The instructions are clear and simple; the system comes to you complete. All you must do is select your seeds, plug in the system and water it routinely. Then, if you have any questions, you may call me directly. Ask your question. Get your answer.

You can not fail with my Phototrons. I do not allow any of my Phototrons to fall below showcase. I personally have guaranteed every Phototron ever sold and I have never had one returned, ever, and I'm not starting now.

Call me at 1-312-544-BUDS. If you do not learn more about plant production than you have ever learned before, I will pay you for the call. Can you afford not to call?

Jeffery Julian DeMarco

PHOTOTRON	NONE	12	YES	YES	YES	YES	YES	YES	YES	YES
HALIDE SYSTEMS	50%	1	NO	NO	NO	NO	NO	NO	NO	NO
LIGHT	LEAF SHADING	LINEAR FEET OF LIGHT	SPECTRUM ADJUSTABILITY	COMPUTER DESIGNED FOR EACH SYSTEM	GUARANTEED FEMALE SEX	NEVER KILLS THE PLANTS	ONE-INCH INTERNODAL LENGTH = 1,000 BUDGING SITES PER PLANT	RE-BLOOM AND RE-BUD SAME PLANTS/EVERY 45 DAYS UP TO 9 TIMES PER YEAR	TOTALLY SELF-SUFFICIENT TO LEAF SATURATION	SERVICE HOT LINE FOR QUESTIONS
NUTRIENTS	CO ₂ SERVICE	Send a \$3.00 money order for our brochure "GROWING PLANTS PYRAPONIMETRICALLY" to PYRAPONIC INDUSTRIES INTERNATIONAL, LTD P.O. BOX 231, WEMBLEY, MIDDLESEX HA9 9EL, UK. PHONE: 01-975-1234	PYRAPONIC INDUSTRIES, INC ²	P.O. BOX 1071, MELROSE PARK, IL 60160, USA						

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AS SEEN ON THE BBC'S
TOMORROW'S WORLD

GROWTH PATTERN OF CUCUMBERS GROWN PYRAPONIMETRICALLY



Typical testing pattern by Pyraponic Laboratories depicting the morphological differences of cucumbers grown under identical conditions except one nutrient level.

Plants nearing top of Phototron in less than 30 days.

Plants filling the Phototron in less than 45 days.

Tremendous flowering and fruiting less than an inch apart.

Normal fruit with a reduced root-to-shoot ratio.

PYRAPONIC LABORATORIES MAINTAINS: (1) The most extensive scientific literature collection in the world on PHOTOTRON accelerated plant growth. (2) A comprehensive library of Data Packages and Soil Analysis selected from over 25,000 PHOTOTRONS sold worldwide. (3) On premises, numerous PHOTOTRONS with the capacity of 3 shelves each so that up to 350 concurrent experiments may be ongoing at any one time. Jeffery Julian DeMarco, President and Founder of PYRAPONIC INDUSTRIES and PYRAPONIC LABORATORIES, maintains his PHOTOTRONS for the purpose of killing plants. It is only after experimenting with the parameters of death at PYRAPONIC LABORATORIES that the PHOTOTRON can perform so miraculously around the world. Mr. DeMarco has full-time laboratory technicians on staff and an extensive technical consulting network from Universities around the world. PYRAPONIC LABORATORIES maintains a sophisticated on-premises computerized network system for data analysis and retrieval. Thousands of experiments have been conducted and thousands more will be ongoing to expand ever further the performance of each PHOTOTRON. As PYRAPONIC LABORATORIES introduces new methods or nutrient formulations, each PHOTOTRON owner is contacted so that every PHOTOTRON is upgraded long after it has been purchased. The PHOTOTRON improves more and more the longer you own it.

GROWTH PATTERN OF TOMATOES GROWN PYRAPONIMETRICALLY



Young tomato plants in vegetative stage.

Young tomato plants beginning to flower and fruit.

Fruiting less than an inch apart.

Normal fruit development with a reduced root-to-shoot ratio.

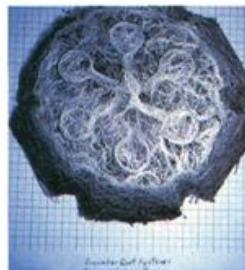
SNAPDRAGONS GROWN PYRAPONIMETRICALLY



Day 46: Phototron jammed with flowering snapdragons

Day 58: Flower with reduced root-to-shoot ratio.

GROWTH PATTERNS OF ROOT SYSTEMS



Complete root system on the stem structures of flowering marigolds.

Pattern depicting the morphological difference of root system.

Mycorrhizal inoculated root system in base of unit on day 45.

HERBS, VEGETABLES AND FLOWERS GROWN PYRAPONIMETRICALLY



Day 65: Herb garden of Parsley, Sage, Basil, Thyme and Chive.

The hottest jalapeño pepper grown anywhere in the world.

Corn development under high light intensity of Phototron.

Normal salvia still flower after more than 1 year old.

Normal marigold size produced with reduced root-to-shoot ratio.

S E P T . ' 8 8

N o . 1 5 7



HIGHWITNESS NEWS

Activists Attend 18th Annual NORML Confab

by Steven Hager

Washington, D.C.—Held at the Howard Johnson Plaza Hotel from June 17th to 19th, the 18th Annual NORML Conference attracted an estimated 120 attendees—35 more than last year, and twice the number that showed up in 1985. This year's theme was "Turning the Corner" and the keynote address was delivered by Ron Paul, Libertarian Party candidate for President.

"From 1776 to 1914, Americans made their own decisions about what they put in their mouths, in their bellies, and what they would smoke in their lungs," said Paul. "In a way we can be thankful for Zero Tolerance. That was the one step in the wrong direction that finally went too far."

As usual, the NORML conference attracted a remarkably diverse group of lawyers, college students, yippies, housewives, doctors, and grow store owners. Despite their differences, this fragile coalition remained cooperative and friendly throughout the 3-day event.

Despite the presence of former Congressman Paul, the conference failed to attract any reporters or news media (other than the usual HIGH TIMES contingent and a few hours coverage on C-Span). In fact, NORML's continued inability to become a major player in the current debate over drug legalization became the most hotly disputed topic at the convention. Ex-Yippie (now Safe Drugs activist) Dana Beal and HIGH TIMES writer Ed Rosenthal both suggested membership be allowed to take a more active role in NORML's direction. Rosenthal shocked the audience by requesting the resignation of the current board of directors. Only one board member—Dan Viets, a lawyer from Missouri—was in attendance. After Rosenthal's speech, the conference erupted into a hubbub, while National Director Jon Gettman seized the podium to defend the current board.

"The most positive thing to come out of this conference was our ultimate goal:

amnesty for all marijuana offenders," says Gettman. "Ed Rosenthal has brilliant insights into the future needs of the marijuana movement, but he is grossly misinformed when it comes to NORML's internal affairs."

"I think NORML grew closer together at the conference," says Doug McVay, NORML's Projects Co-ordinator. "A lot of people from all around the country got a chance to compare notes. We have disagreements on tactics, but the main thrust is to get marijuana legalized."

Among the notable celebrities who addressed the convention were: Jack Herer, author of *The Emperor Wears No Clothes*, a historical survey of cannabis and its relationship to society; Dale Gieranger, head of California NORML; and Dr. Arnold Trebach, author of *The Great Drug War* and founder of the Drug Policy Foundation.

Professor Trebach compared the current drug situation with the civil rights movement in the '60s. "For years I asked people to change," he said. "Suddenly everyone wanted to change and civil rights became an issue of technical knowledge, and that's where we are now with drugs. Legalization is not a simple wipe the laws off the books. You have to start with the sick people, the millions who are physically suffering because of the drug law mentality. No medicine should be denied to sick people. Then we have to deal with narcotic addicts, who have become the scapegoats of society. We currently act as if drug use is a bigger problem than AIDS. That is a national calamity!"

Aside from electing board members, Beal had three suggestions for NORML: Shift the terms of the argument from privacy to public health; create a new and larger coalition of blacks and gays to deal with law reform; and move the annual convention back to December, so that a marijuana judging contest could be held in conjunction with the conference. (This last suggestion won the hearty approval of the audience.)

Gieranger reported on recent studies

on health and marijuana use, and his conclusions were not completely comforting. "According to a recent study in *Archives of Surgery*, 34% of accident victims arriving at a hospital emergency room showed evidence of recent marijuana use," said Gieranger. "Consequently, accidents may be a major risk factor in marijuana use. Be aware that marijuana does affect your performance. When in doubt, I like to give myself a sobriety test. Standing on one leg while talking is one."

Other highlights included the annual chowdown at the Marrakesh Restaurant, and a family picnic and bar-b-que held in the country. Unfortunately, food and drink arrived late and everyone was



JOHN EDER

Jon Gettman, national director of the National Organization for the Reform of Marijuana Laws (NORML).

left baking in the sun for several hours with nothing to do.

"I don't want to appear overly negative," says John Sajo, director of the Oregon Marijuana Initiative (OMI),

continued on page 22



HIGHWITNESS NEWS

PISS PATROL SPOTLIGHT ON: 3M

by Maura Less

"Our policy was deliberated on for a while by almost every level of 3M, and it is well-accepted by almost all our employees," says Barbara Perkins, Public Relations Counselor at 3M Corporation, of their urine testing policy. This may very well be the case—these are conservative times—but 3M's program is far from acceptable. While their policy is less disruptive of privacy than Motorola's (see Highwitness News, April '88), it does include one major violation of privacy which any fair law governing these programs would make illegal.

3M's policy, like Motorola's, has a provision that sets up a blacklist of job applicants who test positive. The names of positive testees who can't provide an "acceptable explanation" are held in company files "indefinitely," according to Perkins, although, six months later people are allowed to re-apply and presumably be re-tested.

But those unfortunates who flunk are not allowed to immediately re-test—even if the results are disputed. Applicants who test positive, according to policy, "will not be given an opportunity to submit another medical specimen for additional testing." This means that if the job they are seeking won't wait for the six months they are required to wait before reapplying, they are simply out of luck. So, even if you just smoke pot or drink a few beers after work—they test for alcohol, too—you can end up on the corporate blacklist for as long as 3M decides to keep you there.

The rest of the policy is less restrictive, although it does contain an odd little paragraph which says: "Drug and alcohol abuse is not an excuse for poor performance. In some cases disciplinary and/or corrective action may be necessary to address poor performance and failure to respond to help."

The drugs 3M tests for are: alcohol, marijuana, cocaine, amphetamines, barbiturates, prophyxene (a synthetic opiate, slightly weaker than codeine), benzodiazepines (valium and such), methaqualone (quaaludes), opiates, methadone, and phencyclidine (PCP). Presumably, if you went out drinking the night before to celebrate getting the job interview, this would constitute an acceptable explanation for alcohol—but these days, who knows?

On the other hand, employees are almost never subject to random testing. Even in high-risk areas, advance notice is given, and random tests are only conducted as part of an Employee Assist-

ance Program (EAP) rehabilitation, or if someone is found to be in possession of drugs. There are specific regulations regarding use of alcohol on company property or business. If it is suspected that an employee has a drinking problem he or she may be tested for that as well.

When there is suspicion that an employee has a drug problem, that person is taken by a manager to the Medical Services Department and evaluated by a doctor. Like Control Data's drug policy (see Highwitness News June '88), only medical professionals are expected to be able to tell what the real problem is, and decide whether drug and/or alcohol tests should be conducted.

If tests are conducted and come out positive, the employee is referred to the EAP. There, counselors and the employee's managers determine the most productive course of action. "Cases of people who test positive once or twice are determined on an individual basis," Ms. Perkins responded, when asked about what typically happens after the first and second positive tests.

Employees who refuse to be tested can be suspended without pay, and a written report must be issued on the incident. If they seem to be impaired and refuse to accept a ride home, the manager is required to call the police.

3M's policy is towards the middle end of the restrictiveness spectrum in corporate drug testing. Ms. Perkins believes that the policy embodies the opinions of

the company she works for. If this is so, it's a sad commentary on the state of a country which purports to respect individual privacy and freedom. The '50s was an era when many people's careers were destroyed by blacklisting; it could easily happen again. ●

MUSHROOM ALERT!

by Stephen L. Peele, curator of the Florida Mycology Research Center

Please be advised that you cannot grow *Amanita muscaria* mushrooms from spores. The only known way to obtain good viable culture is through tissue cloning. This involves taking a piece of sterile flesh from one of the actual mushrooms. Even when you have a good culture, the fruiting process is another problem. All mushrooms in the genus *Amanita* have what is known as a "Mycorrhiza" relationship. This is a symbiotic association of the mushroom and root tip systems of specific type trees. This is why you find *Amanita phalloides* under oak trees, and why you find *Amanita muscaria* under pine trees, and so on. Because the mushrooms in the genus *Amanita* have this special condition, they cannot be produced from spores. ●

A FIELD GUIDE TO NORTH AMERICAN CONSERVATIVES

BY JOE BARTOS

The Conservative Life Cycle

Old Age

Respected for their senility, elder members of the species are entrusted with advancing the intellectual climate of the species. This is done by reaching out to like-minded groups in South Africa, the German Nazi Party, and remote villages in Eastern Europe that still practice feudalism, trial by torture, and lopping off women's feet to keep them in their homes.



ONE MAN'S DOPE

HOW I WOUND UP IN BED WITH BILL BUCKLEY

by Dean Latimer

And now the black liberal mayor of Baltimore is talking about legalizing horrible addictive drugs, entering the company of silk-stockinged redneck William F. Buckley, who's been advocating it for nearly three years already. So they both enter company with this magazine, which has been banging the legalization gong since 1974, and with me personally, who apprehended all the starkly simple virtues of legalization one crisp evening in the early spring of 1967, when an Avenue B dope dealer with whom I was haggling over a shoebox full of shiny Nepalese temple balls stuck a .38 in my face. Why, how *simple* it all is!, rejoiced my tetrahydrocannabilized sensorium in an electric instant of satori: all this pleasant stuff really ought to be legal, and given away for free, so that greedy crumb-bums like this uptight turd aren't always drawing down on decent people like me, causing us to piss our britches in front of our girlfriends. From that day forth to this day, I have never paid or made a single farthing on any species of illegal drug, and I've always felt immeasurably superior to everyone who does traffic in dope for pelf, sellers and buyers alike. They are all involved in a foolish befoulement of their karma, because this wonderful stuff really ought to be given out for free.

As to what could have possibly traumatized William Francis Buckley into this selfsame enriching

illumination, it's unlikely to have involved the personal experience of stark terror. Most likely he simply looked at the bald money figures—\$138 billion per annum changing hands over narcotics in the USA alone—and realistically reckoned up the irreversible consequences (as he would surely put it) of that much illegal money douching through the subterranean economy. Try to calculate all the cops, congressmen, judges, DAs, bankers, and real-estate agents who get bribed with that money every year, year in and year out, for at least a decade now. All those people become mortally compromised after they've taken that filthy money, susceptible forever after to political blackmail by the criminals who bribed them. So that if, by intensifying our national efforts at drug-law enforcement, we ever do manage to consolidate all the functioning drug dealers in the subterranean economy into two or three big, organized, Mafia-type syndicates...

Oops, here I have to backtrack a few steps, and explain what's called the "enlightened theory" of drug-law enforcement, which almost never gets publicly expounded by the many, many top-rank police administrators who hold by it, and fashion their permanent enforcement policies according to it. This theory pragmatically acknowledges that some people in every walk of human endeavor are always going to want to do dope—just like some people will always want to bet the numbers, play with firecrackers, bang hookers, masturbate while viewing pornographic videos, *ad nauseum*. All these people are permanently impervious to correction, too. Great moral-rearmament crusades periodically sweep this highly spiritual nation, shriving and redeeming everyone (for a



couple seasons anyhow except these hard-core degenerates). But there are always plenty enough people who like to do dope, and so there are always plenty of dope dealers around making money off these wretches. This is a fact of human social existence, and no matter how stupid you may be, just ten or twenty years of police work will eventually demonstrate it for you, sure as sin.

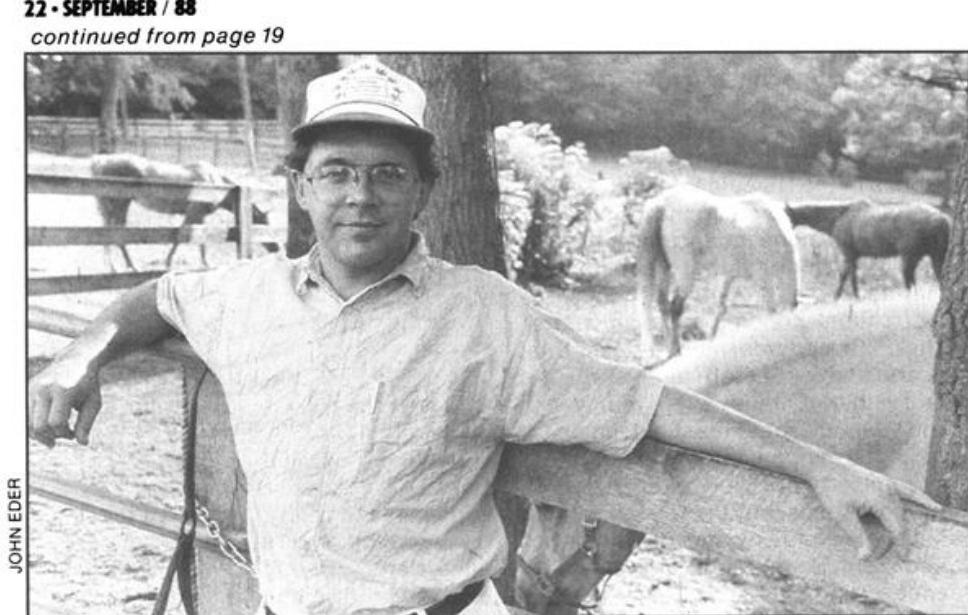
So you'll always have drug users and drug dealers, sure, but there is no reason in this to despair. In fact, once you've accepted this reality as a cop, howsoever reluctantly, in your very next heartbeat you will begin to apprehend all the glorious advantages and possibilities inherent in it. These people who deal dope, first off, since they do know every natural-born degenerate and flake case in every neighborhood, make for splendid scouts into the most chronically-troublesome sectors of every urban environment. And virtually every one of them is perfectly happy and proud to work for the police as snitches, reporting everything of interest that occurs in their vicinity, from the location of homicide fugitives to the activities of dynamite-toting political crazies.

These are the simplest street-level advantages which the drug traffic affords enlightened police administrators. Higher up in the dope-moving echelon, it can get even better, if it's handled properly. Up to fairly recently, all the neighborhood hard-drug dealers across the USA operated pretty effectively under the discipline of their regional racketeering organizations—the local Mafia. This had multiple advantages (the dope was always liberally adulterated, for one humanitarian thing), the main one being that all this filthy money was conducted primarily to a few known and celebrated hoodlums, whose notoriety kept them from ever being terrifically effective at bribing eminent political and financial figures. As much as any Presidential candidate might covet Sam Giancana's money, there was no way he could risk being seen to take it; and so the dope



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John Sajo, director of the Oregon Marijuana Initiative (OMI).

one of the most effective pro-cannabis groups in America, "but there seems to be a general malaise surrounding NORML. We did a mailing to their membership and the reaction we got was 'Finally, I hear from you guys!' It's a good list, but not much is being done with it."

It's no secret NORML has been in hard times financially since founder Keith Stroup left the organization a decade ago. Former National Director Kevin Zeese (who is currently co-director of the Drug Policy Foundation) inherited a six-figure debt when he took over. Before he left two years ago, that deficit was reduced to \$20,000. Although the organization has not run up any further debt, employees continue to be paid on a "when funds are available" basis. Considering the size of the marijuana-smoking population in America (estimated at between 30 and 50 million), these financial difficulties are hard to

swallow. HIGH TIMES recently attempted to raise funds through a special NORMLTHON Top 100 and so far has managed to raise a dismal \$2,000.

"That's 3/10ths of a cent per HIGH TIMES reader," Rosenthal told the audience. "NORML membership is less than 10,000 people. Out of 30 million pot smokers, that works out to a really low percentage. Basically this organization is totally ineffectual. So we have changes to make, and we have a very sick, ailing organization."

"When I first came here five years ago, we spent all of our time on internal politics and didn't do a damn thing to organize or raise funds," said Gettman, replacing Rosenthal at the podium.

"When will we be able to vote for the leaders, man?" interrupted Beal from the audience.

"When you provide enough money for us to get some work done," countered Gettman. "If you want to spend all your time on internal politics, I can't help you because I've got work to do. Over the years we had complaints there was too much emphasis on lawyers. This year we're hearing complaints because the lawyers aren't here. You can't have it both ways."

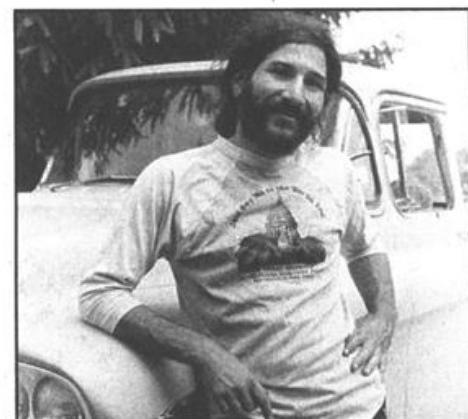
YIP VERSUS YUP

Actually, this confrontation—which took place on the final day of the conference—was just the latest outbreak in a decade-long debate between the yippie and yuppie elements within NORML. When NORML was founded in 1971, Stroup believed firmly in working within the system: organizing voters, lobbying Congress, preparing court cases, etc. The Yippies, however, put more emphasis on public demonstrations and staged media events. For several years the Yippie approach seemed to be failing: hippies went out-of-fashion and attendance at smoke-ins across the country dwindled. However, the success of

last year's Madison, Wisconsin, Harvest Festival (10,000 demonstrators stormed the State Capitol) has changed that situation dramatically. Ben Masel, organizer of the Madison rally and a well-respected figure in the cannabis reform movement, maintained a low-key presence at the conference.

Since former director Zeese did not attend this year, there was speculation that Zeese had become disenchanted with Gettman's tenure, especially Gettman's decision to change NORML from a lobbying group to an educational organization, a change that was made primarily for tax purposes. In a recent phone call, Zeese hotly denied these rumors.

"I think Jon's struggling with a very difficult situation," he says. "NORML's big problem is money. The second problem is that they're brave enough to represent illegal drug consumers, which means they have a hard time achieving credibility as a legitimate consumer's union. And that's why they're not at the center of the current debate. As far as members voting for the board—that's been discussed in the past. But NORML is a very interesting mix of people, and a voting situation may force minorities out. Voting for board members is not going to change the basic problems of money and credibility. On the plus side, Jon's activist handbook [*Social Activism and Marijuana Reform* by Jon B. Gettman] is better than anything I did in that area, and the medical marijuana suit is finally reaching fruition. As far as I'm concerned, rallies are counter-productive. They encourage the



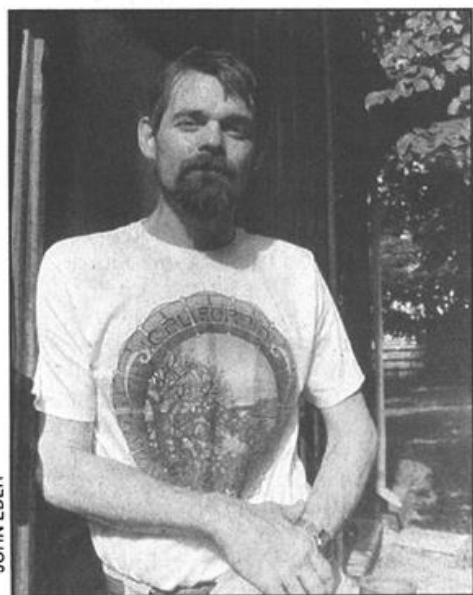
Ben Masel, organizer of the Midwest Harvest Festival in Madison, Wisconsin.

stereotype of the marijuana smoker as a long-haired freak. I have nothing against longhairs. The point is that the public does."

THE BOARD RESPONDS

A week after the NORML conference, the semi-annual NORML lawyers seminar was held in George Bush's hometown of Kennebunkport, Maine.

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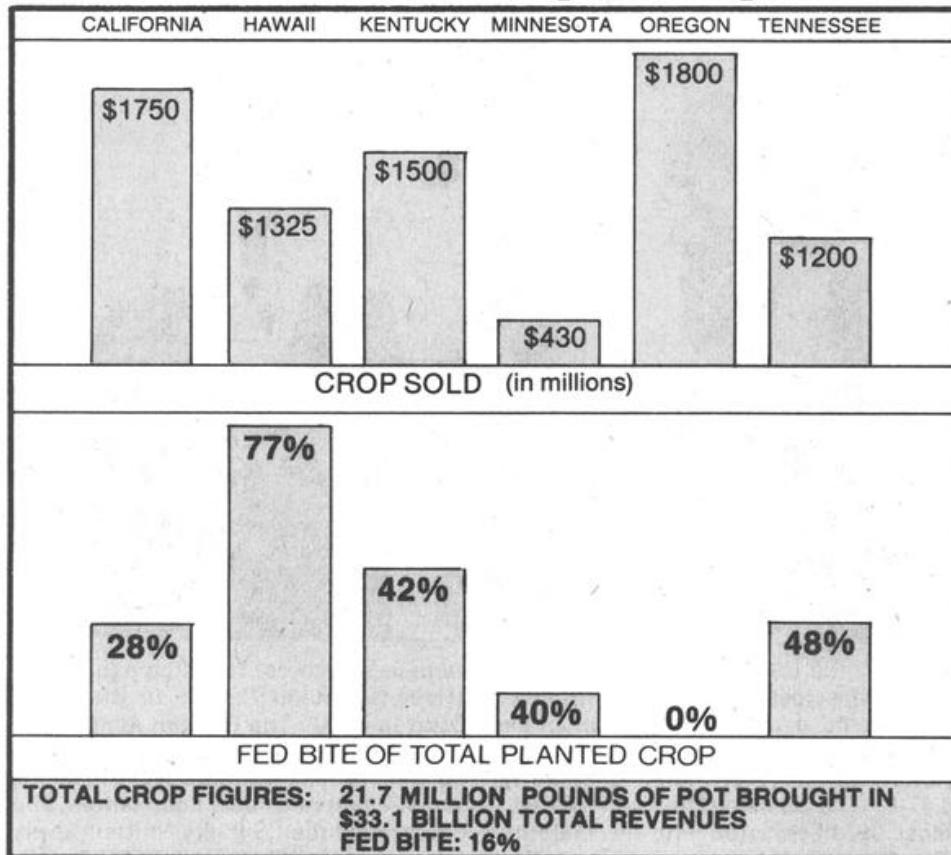
Dale Gieranger, head of California NORML.

JON GETTMAN

N O R M L
NATIONAL DIRECTOR

N O R M L - I Z E R

The 1987 Crop Report



The 1987 US marijuana crop was bigger and better than ever.

US marijuana farmers brought 21.7 million pounds of marijuana to market in 1987 at an average price of \$1,525 per pound. The total crop was worth \$33.1 billion, an increase of 24% over the \$26.7 billion crop of 1986. The increase came despite spectacularly successful Hawaiian and Californian marijuana eradication programs.

Operation Green Harvest, an intensive eradication program in Hawaii, seized 77% of the marijuana planted in the state and deprived the local economy of \$3.2 billion. The CAMP program in northern California was also very successful, eliminating 28% of the California crop. CAMP, and crop damage due to fire, resulted in a substantial reduction in the amount of marijuana to come out of California, which only produced a crop valued at \$1.75 billion, second in the nation. Ore-

gon, whose marijuana crop was relatively unaffected by eradication, became America's #1 producer with a crop valued at \$1.8 billion.

The US government increased their estimate of the domestic crop by 50% from the 1986 level, and also indicated that foreign production, after eradication and seizure, was up 25%.

The government was only able to pursue 2,057 significant investigations of marijuana cultivation in 1987. Previous estimates have placed the number of commercial marijuana growers between 90 and 150,000.

Despite the government's tendency to underestimate marijuana supply, their own figures indicate a 150% increase in domestic production between 1981 and 1987, and a 75% increase in the availability of marijuana in the US between 1985 and 1987. These figures mock the National Institute of Drug Abuse (NIDA)

position that marijuana consumption has been on the downswing this decade and confined to a small population.

The best news is that, while marijuana supplies have dramatically increased, daily use by high school seniors has continued to fall. This suggests that wider availability did not increase teenage use. Since this is one of the primary concerns that most Americans have about the potential legalization of marijuana, it is yet another sign that marijuana legalization looms in the near future.

The federal government spent \$500,000 in Hawaii, eradicating a record 1,899,955 plants. Given the growth of marijuana production in states like Tennessee and Kentucky, it seems that all these efforts accomplished was to deprive the Hawaiian economy of billions of dollars in revenue. When state governments realize that eradication efforts don't lower the availability of marijuana, just shift the bounty around, support for marijuana eradication will vanish.

Anyone familiar with the state-of-the-art growing technology in use in Oregon won't be surprised to learn of Oregon's ascendancy as the primary marijuana producer in the United States. Outdoor farmers hope to preserve Oregon's share of the market by using polymers to provide water for plants cultivated far from stream beds or wells. For years, indoor farmers have been learning to use technology to increase their yields. Eradication efforts in Oregon were poor last year, only getting about 60,000 plants.

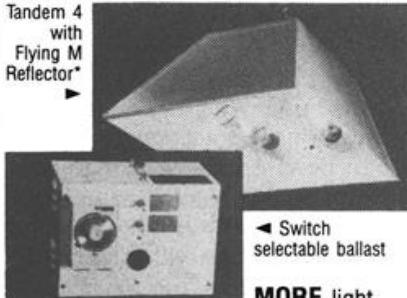
The eradication program also got 48% of the crop in Tennessee, which still managed to produce \$1.2 billion of marijuana. Kentucky lost 42% and still produced over \$1.5 billion. Minnesota lost 40%, and produced a crop worth \$430 million. Despite these impressive programs, nationwide the DEA was only able to get 16% of the 1987 crop.

As discussion of the legalization of all drugs continues, the marijuana option looks more and more attractive—especially given the futility of domestic marijuana eradication. The 1987 crop figures indicate that marijuana remains a lucrative potential target for taxation and regulation.

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THE UNITED STATES: OUTLAW NATION



by Ed Rosenthal



JONATHAN SCHNEIDER

In 1987, the US Congress passed a law forcing the closing of the PLO mission to the UN. As a result, on March 2, the United States lost a vote in the United Nations by an overwhelming majority, 147-0. (The US delegation had walked.) Most US allies voted with the majority. The General Assembly was protesting the violation of an agreement that the US—as the UN's host country—had made with the international organization forty years ago. The resolution called on the World Court to review the matter.

• US isolation in the UN and among other nations on planet Earth began early in the Reagan administration. In May 1981, the World Health Organization (WHO), an affiliate of the UN, passed a resolution regarding the marketing practices of baby food manufacturers in poor countries. The main culprit was Nestlé, a Swiss corporation which provided free samples to mothers for long enough for their breast milk to dry up. Too often the parents could not afford to keep buying the expensive baby food, causing infant malnutrition or starvation. Every country but one voted to restrict these marketing practices.

• Against both US (the Neutrality Act) and international law, the US mined Ni-

caragua's harbors. The Nicaraguan government brought the US to the World Court in 1984. The Reagan Administration, knowing it was engaging in international terrorism, walked out of the Court, something it had never done before. The Court found the US guilty. Virtually every country but the US recognized the Court's decision.

• In 1983, 241 US marines were killed by a suicide truck-bomb driven by a pro-Iranian guerrilla. The US withdrew the rest of the marines and escalated their indiscriminate bombardment of Beirut. Just lobbing shells into a city. No matter that there were no military targets. This action was condemned by countries throughout the world, and led to a new round of hostage-taking in Lebanon.

• In November of 1987, there were several UN votes which were not reported by the US media. UN nations voted 147 to 1 against militarizing space—that is, against Star Wars. By a margin of 101 to 3, it voted against further nuclear testing (France and Britain sided with the US on this one).

• The US is one of the only nations lending support to the racist South African government.

continued from previous page

- The US and South Africa are the only supporters of terrorist groups creating havoc in Angola, in violation of numerous overwhelming UN votes.

- In 1983, with no provocation, the US invaded tiny Grenada (population 150,000). We were worried that this tiny speck of an island was threatening US security. While the invasion played well to American audiences, almost all other countries, including our allies, condemned it. A draft resolution condemning the action was defeated in the UN Security Council solely by US veto, but the General Assembly subsequently voted against US actions.

- In Central America, the US is the only country attempting to thwart the Arias peace plan. This is nothing new. The Reagan Administration opposed the Contadora peace plan, which was proposed in 1983 by several South American countries.

Reagan and his operatives, Bill Casey and Ollie North, didn't care that Congress, forced by American public opinion, had stopped Contra aid. With an authoritarian mentality, they intentionally disregarded laws passed by Congress and ran their own private terrorist aid program.

These blunders are not aberrations, they are this administration's foreign policy. Reagan has handed the government's policy reins to a small group of right-wing zealots who could care less about furthering human rights. They don't mind messing up this country's reputation as a leader of democracy, using the US government to impose their views on the world. In the same way that Kissinger's policies during the Nixon administration were designed to benefit the big oil companies rather than the American people, this crew's policies are designed to spread the gospel of the super-right-wing rather than serve the nation as a whole.

What does it all mean and where do we go from here? First, we have to decide: Is the US going to be an outlaw loner nation or part of the world community? As a cowboy nation, we will become increasingly isolated. This is already happening. Recent polls show that most Western Europeans think that the USSR is more interested in peace than the US is. We must ask: Is the current US policy serving our national interest or a few special interests? Ultimately, we need a totally new outlook on world affairs, one that uses democracy and justice as its tenets. ●

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Anchorage, AK

Mexican "mostly cheap dirtweed," \$20 1/8-oz; \$35-45 1/4-oz; \$160-180 oz; \$250-350 1/4-lb.

Pepperweed "same thing we had in the late '60s and early '70s continues in the '80s," \$25-35 1/8-oz; \$40-50 1/4-oz; \$300-400 1/4-lb.

California Emerald Triangle "not top notch; grown locally from seeds from northern California," \$30-35 1/8-oz; \$1600-2200 lb.

Thai sticks "big, fat, and long," \$65-75 1/4-oz; \$220-240 oz; \$600-750 1/4-lb; \$2400-2900 lb.

Local red hair "mostly Skunk #1 NL 5 cross," \$35 1/8-oz; \$55-65 1/4-oz; \$200-220 oz; \$600-750 1/4-lb; \$2400-2600 lb.

Anchorage and MAT-SU Valley thunderfuck \$35-45 1/8-oz; \$65-80 1/4-oz; \$200-260 oz; \$500-850 1/4-lb; \$2200-3500 lb.

Hawaiian kona \$40-45 1/8-oz; \$75-85 1/4-oz; \$200-285 oz; \$750-900 1/4-lb; \$3000-3600 lb.

'Shrooms "always around; just know the locals," \$10 gm; \$40 1/4-oz; \$160 oz.

Little Rock, AR

Mexican buds "seedly; brown; ho-hum," \$25 1/4-oz; \$250 1/4-lb.

Ozark Mt. buds "moist; keep you

stoned all day long," \$30 1/4-oz.

Brown hash "will spin your world; scarce," \$10 gm.

Albany, CA

Chocolate Buddha Thai \$130 oz.

Killer Indo/*sativa* green bud \$215 oz.

Oregon white bud "so crystallized it's white!" \$230 oz.

Mexican "shit; seedy bud," \$90 oz.

Honey hash oil \$35 gm.

'Shrooms \$25 1/4-oz.

LSD: blue blotter "fat doses," \$40 a sheet.

Coronado, CA

Afghani/Mexican "strong buzz," \$110 oz; \$900 lb.

C #40 *indica* "a truly great hybrid; grown in Escondido; comparable to Hawaiian," \$160 oz; \$350 1/4-lb; \$1500 lb.

Colombian rainbow weed "killer solid *sativa*; beats Mexican; all kolas, few seeds," \$65 oz; \$550 lb.

Early Pearl "early buds; some are Skunky," \$135 oz.

Hawaiian/Nigerian "incredible high," \$350 oz.

LSD: purple haze "200 mics a hit," \$5 a hit; \$110 per 100.

Martinez, CA

Killer indoor

Skunk \$70 1/4-oz;

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\$280 oz.

Purple death hydro \$200 oz.

Thai "big Thai busts recently created bud drought," \$25 1/8-oz; \$160 oz.

Commercial

Mexican "can't give it away," \$25 1/2-oz.

'Shrooms

"Oregon's finest; wall melting common on this stuff," \$6 gm; \$20 1/4-oz.

Evansville, IN

Colombian "fairly good high; lotsa seeds," \$25 1/4-oz; \$100 oz; \$350 1/4-lb.

Kentucky homegrown "good buzz; nice smell," \$30 1/4-oz; \$110 oz; \$350 1/4-lb.

Local homegrown "nice, smooth three-toke high," \$35 1/4-oz; \$120 oz; \$400 1/4-lb.

LSD: blotter "speedy high; few visuals," \$5 a hit.

Scottsville, KY

Compressed dirtweed "old; fuzzy high," \$35 1/4-oz; \$140 oz.

Compressed

sativa "fresh; reddish color; few seeds; soaring high," \$40 1/4-oz; \$160 oz.

Indica buds "green; seedy; good stone," \$40 1/4-oz; \$150 oz.

Brown *sativa* "very damp; lots of shake; a must to avoid; shitty pot—for yuppies and other lowlife," \$40 1/4-oz; \$140 oz.

LSD: blotter "watch out for bootlegs—may be strychnine (gag!)" \$4-5 a hit.

Northfield, MA

Smitty sinse "quality *rudereralis/indica/sativa*; 8th generation," \$325 oz.

Afghani/Thai/ Skunk #1 "sweet, sweet, sweet!" \$250 oz.

Purple nerd mesc \$1 a hit.

LSD: red and silver diamonds "from the shows; excellent," \$2 a hit.

Asheville, NC

Sativa dominant hybrid "green and wet; the best buy if you know the right people," \$130 oz.

\$450 1/4-lb; \$1400 lb.

Mexican brown "loose shake, but buzzy; big bags are stemmy; not a bad last resort," \$30 1/4-oz; \$85 oz.

Homegrown *sativa* "overpriced, but it's some of the best local weed this year; for the select few," \$160 oz; \$2300 lb.

LSD: blotter, microdot \$6 a hit; \$200 per 100.

Greenville, NC

Brown boat weed "good buzz when there's nothing else available," \$100 oz.

Orange hair *sativa* "delicious taste; great for the working buzz," \$35 1/4-oz; \$110 oz.

Local indoor *indica* "put your seatbelt on for this buzz; not too much around, though," \$65 1/4-oz.

LSD: clownface "tremendous buzz; Oh, God!" \$4 a hit.

LSD: white blotter "the Floyd couldn't have been better; Syd would have appreciated it!" \$5 a hit.

Cocaine "rocks, rocks, and more rocks!" \$80 gm; \$230 1/8-oz.

Columbus, OH

Skunk buds "some of last year's," \$80 1/4-oz; \$250 oz.

Loose West Coast Thai "from 50 lb bale," \$700 1/4-lb.

Black hash

"resources exhausted," \$1900 lb.

Olmstead, OH

Skunk bud "brain dead," \$40 1/4-oz; \$140 oz.

LSD: white blotter "good time," \$4 a hit. 'Shrooms "ok," \$3-4 a hit.

Black Ganja "very rare: THIS IS IT!; must know the right person to get this fire," \$65 1/4-oz.

Red hair sinse "this shit will daze and confuse you," \$40 1/4-oz.

Dirtweed "harsh as hell; don't even bother," \$25 1/4-oz.

Cocaine "yellow rocks; the Music City's best; all but pure; very good blow," \$100 gm.

LSD: blotter "wow!!" \$6 a hit.

LSD: musical note "at least 13 hours," \$5-6 a hit.

Ozark City, VT

Commercial Colombian "lots of seeds; ok high," \$30 1/4-oz; \$100 oz.

Indica buds "big, fluffy buds; very kind," \$70 1/4-oz; \$240 oz.

Dark green Skunk sinse "after one bowl you're blasted!" \$365 oz.

LSD: zodiacs "incredibly intense," \$5 a hit.

LSD: lucky charms "gotten at reggae concert; very clean and strong," \$6 a hit.

TRANS-HIGH MARKET LETTERS

edited by Edie Barrett



CALIFORNIA

I was recently discharged (honorably) from the navy here in San Diego, CA. The first order of the day: GET HIGH! Mission accomplished within 72 hours of discharge. I paid \$20 for some killer weed, which is fairly expensive for the amount of weed I got. So I thought, "Fuck this, I'll grow my own!"

I went out and bought *The Marijuana Growers Guide* by Ed R. and started germinating. I tried several ways of germinating, each using 10 healthy seeds.

First, I planted seeds in good soil (7.5 pH) with plastic over the top of the container (which I removed when leaves came through the soil) and a 50-watt gro-lux light as a source. Only one seed germinated, and it didn't last long.

My second method was to plant seeds in fresh soil without a cover, with the same light source. There was no germination at all.

The third method I used was to line an old mayo jar with wet paper towels (which were taped on). Nine seeds germinated in 3½ days. Shit!! All seeds had an initial root of ¾ of an inch when I transplanted them into peat pellets. Only one seed didn't survive the transplant. Thought your readers might appreciate the tip.

—*Captain Nemo*
San Diego, CA

I've been reading HIGH TIMES for about two years and I've finally decided to contribute my little piece to a great magazine.

The bud situation around here is pissing me off. Increased prices and low quality are going to drive me batty. Mexican sinse goes for \$15-20 an eighth and \$30 a quarter. I haven't seen any quality bud for about two or three months, aside from some brown Thai going for \$35 an eighth. Where's all the good shit?

Two years ago I could get an ounce of primo skunk that was one bud (and a

donkey dick, at that) for \$150. Now it's all disappeared. My friend came over the other day and got me excited telling me he could get an eighth of Skunk bud for \$35. What he brought back was definitely off an *indica* plant. The unmanicured buds were small with a hell of a lot of leaf. Oh, well! I have my own harvest season coming up!

—*Fellow Pot Head*
San Joaquin Valley, CA

CANADA

I have been reading your mag for about two years. I think your coverage of buds has been extensive, but how about some variation? Us folks up here in Canada get lots of hash; how about an article on worldwide hash production or maybe a global tour?

The hash we get here is mainly Paki-Afghan, occasionally Moroccan and Lebanese, and, rarely, Indian and Nepalese. During the spring, hash has a tendency to become scarce. (I assume this to be a seasonal thing.) People that have hash usually like to cut it with something or another—pretty sick people, eh?

Anyway, look forward to more info on hash. Keep up the good work!

—*Anonymous*
Canada

KANSAS

Hello from Lawrence, KS! Go Hawks and all that shit. Quarter-pounds are going for \$260-285, depending on quality. And quality ain't great! Seems like I never run across quality smoke anymore. My man says pounds are \$800-1000, but I don't know... maybe \$700-900 sounds more like it. But he could be on the level, from what I've been reading.

If you know the right people, LSD is plentiful. If you can find a cool Deadhead, you can get it for maybe \$2 a hit, for quantity (half a sheet to a sheet). But mostly it's \$5 a hit—AAAGGHH!

So how about lighting up in public? It's time! But what can we do, besides support NORML (yea!)? (*There's something we could all do; see page 82 for details—EB*) Those smoke-out/harvest fests at schools and at the Capital are great. That's what I'm getting at. You guys can't set up all those things, but college drop-outs like myself should get off our asses and paste up some posters and shit, right? Well, I guess we'll see... but there's got to be little things individuals can do, right?

—*Anonymous*
Lawrence, KS

MASSACHUSETTS

I read a letter in your May '88 issue from a pissed-off grower who lost \$400 sent by mail to a seed company. Well, I sent for seeds and had the opposite happen. Not only did I receive my seeds only two weeks later, but I sent my money regular mail, inside a folded piece of paper. By the way, every single seed I received sprouted. I couldn't be happier.

—*Anonymous*
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NEW YORK STATE

Good herb here goes for \$200 an ounce, with most of it sold by the nickel. It's nice and moist, though—above average commercial grade. Blow is big, goes for about \$40 a gram. Regrettably it's often cut with more harmful stuff... like caffeine. Shit, I could get the same effect by snorting No-Doz or Vivarin. But why? Crack and smack abound for the fools.

Herb is #1! Let's all just say NO to that movie actor-groupie whore Nancy who sits and shits in the White House.

—*The Kid*
Bronx, NY

VERMONT

Just a little note from the Northeast part of the country. There has been a pretty good spell of buds; mostly dry *indica*, and a little skunk. Haven't seen very much acid lately. So here I sit, with my three-chambered architectural masterpiece of a bong (it's a true beauty in a world of ugly bongs), listening to an environmental tape (the rain one) on the stereo.

To all the boys still stuck at VA—ha! Life couldn't be better. Spending the whole day sitting around the house, getting stoned, then going mountain biking. So long from Vermont, where the indoor growers reign supreme. And fuck Bush!

—*The Chong Maker*
Somewhere near White River Junction, VT

ATTENTION GROWERS!

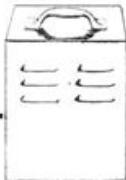
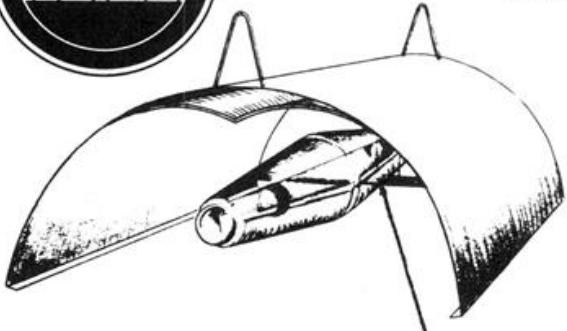
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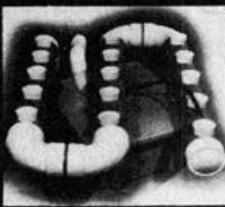
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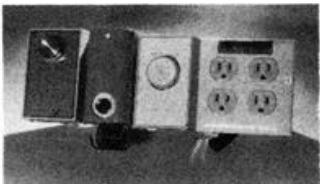
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ONE MAN'S DOPE

continued from page 21

money stayed relatively harmless, back in the long ago 1970s, when hardly \$50 billion changed hands over dope in any given year anyhow.

The big cocaine bonanza of our '80s has comprehensively put the blocks to this cozy scenario. With over three times as much filthy money floating around nowadays, there's no way to tell who's bribing all these cops, bankers, and politicos. You can only be sure that an appalling lot of them are taking money, because we now have crack in schoolyards everywhere in the land. So if you follow the orthodox enlightened theory of narcotics enforcement—without thinking very much about it—you might decide that by intensifying enforcement like never before, busting as many street dealers and even users as possible, at least you could eventually get a line on who is moving in all this cocaine and distributing it nowadays. And once you've located two or three of the major syndicates, you could send them a signal that it's okay for them to operate, but they have to consolidate the entire traffic by machine-gunning all their less well-organized competitors; and after a certain period of bloody havoc, things in the streets will be relatively orderly again. If it worked with the Italian heroin mob in the '70s, why shouldn't it work in the '90s with these South American cocaine hoods?

But try selling this enlightened notion to someone like William F. Buckley, intellectually capable of thinking two steps ahead, or even three. If you narrow down the national dope franchise to two or three big syndicates this late in the day, you aren't simply making them a present of all that troublesome dope money, but of all its bribees as well. Sure, rigorous narcotics enforcement could conceivably tighten up the executive echelons of the trade a good deal, but then look here: your new crooks come automatically into possession of all those cops, bankers, and politicos who've been on the take over the last decade of non-regulation. They'll own all those otherwise perfectly decent (and uniformly conservative) people, and then what will they do with them? As fascist as you might consider William F. Buckley to be, believe me, even he would retch at the notion of the ultraconservative ideals cherished by your typical Latin American drug kingpin.

So that's how we wound up in bed together at last, me and Bill Buckley and the black liberal mayor of Baltimore. All that nice stuff really ought to be free, after all, and it's just so rewarding to see how more and more intelligent people are realizing it as time goes on. ●

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QUICK FLASHES

by Edie Barrett

MUST'VE BEEN GOOD SHIT....

One million dollars worth of cocaine was found in the lavatory holding tanks of an Eastern Airlines flight originating from Colombia on April 27. The coke-carrying commode was discovered when a mechanic at National Airport checked the plane during a layover in Washington D.C. while en route to Kansas City and unearthed ten kilos of 85% pure blow in plastic packages. DEA special agent Mario Perez said the plane should have been checked in Miami by U.S. Customs officials (who usually search all aircraft for signs of smuggling), but he gave no explanation why the mechanic was in the toilet's holding tanks in the first place....

AND BILL CASEY SUPPORTS BOB WOODWARD....

Republican Presidential candidate George Bush (rhymes with "rush") got an interesting campaign endorsement over the May Day weekend: from former Ohio State University football coach Woody Hayes. The endorsement would have been a nice gesture except for the fact that, as of that weekend, Hayes had been dead for 14 months. The endorsement found its way from beyond the grave via Gene Watts, an OSU history professor who, when not moonlighting as a medium to the spirit world, doubles as a Republican state senator. "In one of [our] conversations...Woody Hayes...said to me: Professor, George Bush is going to be the best President in the 20th century," Watts was quoted as saying. ●

Activist Calendar

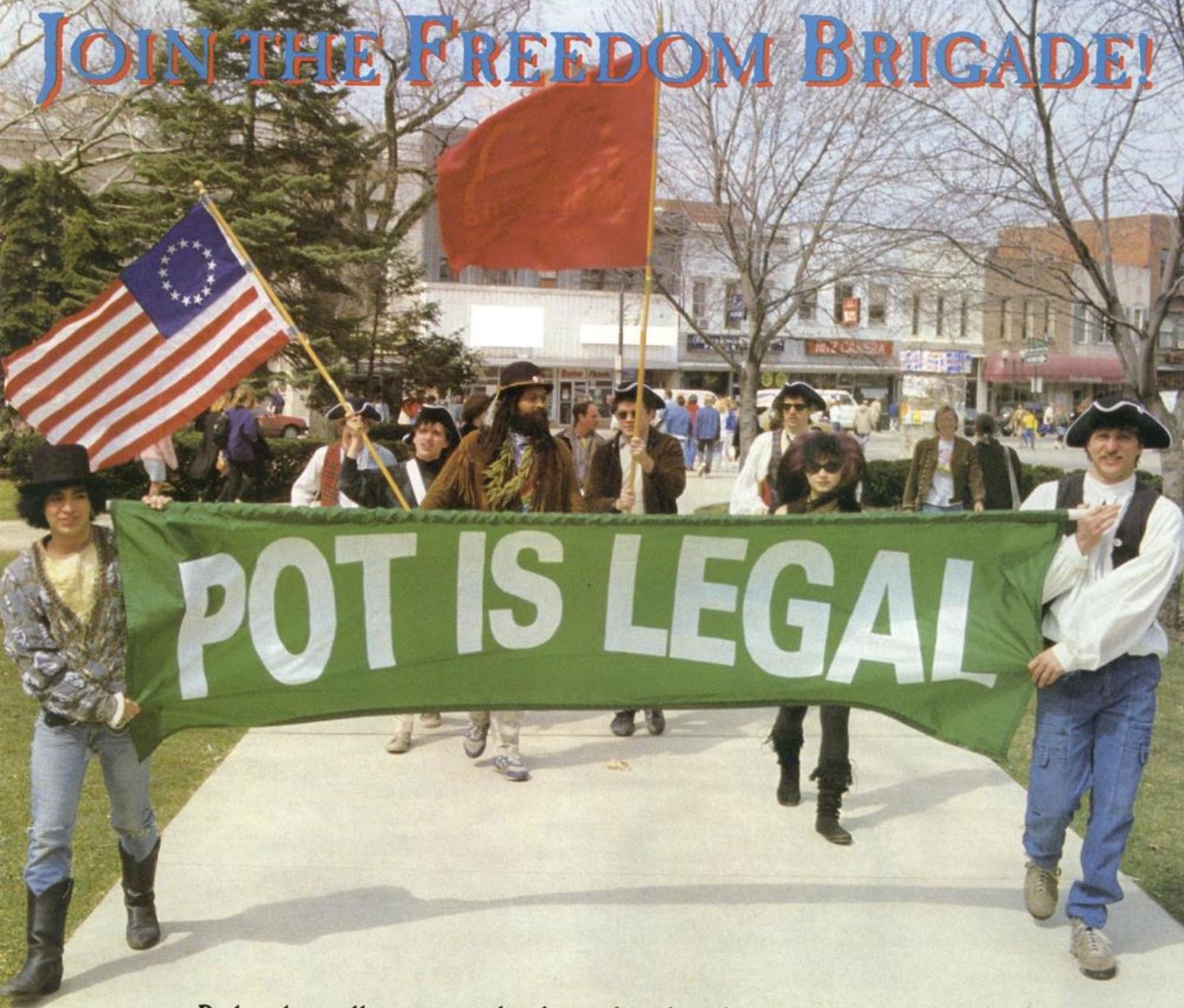
August 20th:

Sane Drug Policy rally; site in New Orleans to be announced (during Republican Convention).

September 24th:

Midwest Marijuana Harvest Festival, Madison, WI. Proceedings begin on the campus mall, and end up at the state capitol building. Also featuring NORML seminar. Further details closer to event time.

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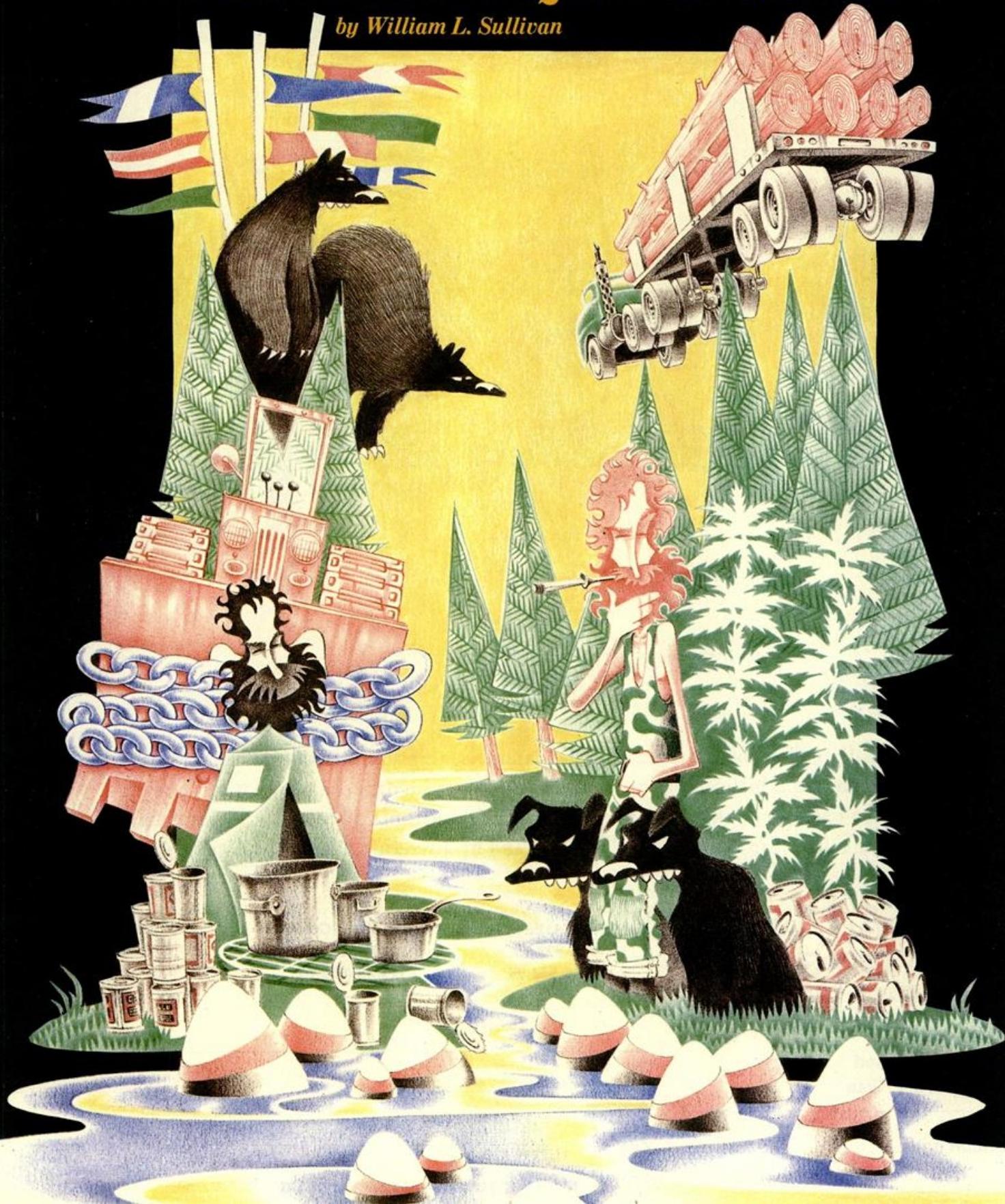
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Listening For Coyote

A Walk Across Oregon's Wilderness

by William L. Sullivan



After legislation increased the number of Wilderness Areas in Oregon from 14 to 37, this author set out on a 1,300 mile trek through some of the toughest terrain in the Northwest. Along the way he met an activist from Earth First! and a 'Nam vet turned outdoor grower.

3:54PM. Atop Bald Mountain. Mileage so far today: 10.5. Total 91.5.

The Illinois River canyon is so steep and rugged here that the "river trail" finally gives up trying to get through at all, and instead detours off the top of Bald Mountain. The sun is blazing as I switchback up this 3,600-foot climb; my T-shirt and socks are soon soaked with sweat. However, I know there is a cool spring near Bald Mountain's wilderness summit and push on.

I am practically at the spring when a black-bearded man in baggy clothes steps out of a green dome tent beside the trail.

"Well, hello," he says. "I knew there was a reason I made extra spaghetti sauce. You prefer coffee or Red Zinger?"

"Um—" I stall. "Water?"

He waves to the spring beyond the tent. "Help yourself. And by the way—the name's Lou. Lou Gold."

I limp to the spring and fill my cupped hands over and over. It gives me some time to survey this sudden host.

Lou seems to be about 40, wears sandals, and has a vaguely East Coast accent. His curly black hair is tied back with a blue-white-red bandanna. Lou's camp is dominated by a fire pit with a big iron grate and blackened pots. Logs and planks form shelves for neat stacks of firewood and canned goods. Lined up against a huge Douglas fir nearby are 20 long sticks, decorated with strange carvings and colored ribbons. Like Lou himself, the sticks are puzzling, but not threatening.

"Are you serious about the spaghetti?" I ask.

"Absolutely."

He has won me over. I sit on one of the logs, put my sore feet into a pair of tennis shoes, and we talk.

Lou tells me he is camped here as a sentinel for Earth First!, an environmental group that fears Bald Mountain will be logged. Even though Bald Mountain appears to stand deep in the wilderness, official Wilderness designation cuts the mountain half. A five-mile-long logging road already has been built precisely on the Wilderness boundary, to within a mile of Bald Mountain's summit. Lou shows me photographs of Forest Service plans that would convert much of the trail I hiked this morning into yet more road and would clearcut the old-growth forest where I had seen some bears.

"Some of those slopes are almost vertical," I recall, looking at his map skeptically. "They couldn't really log it."

He points to a label on the map:

Helicopter Logging Area. "Cost is no object," he says.

I frown. "So what do you plan to do about it?"

He smiles and leans back. "Earth First! has its ways."

"Like what?"

"Non-violent civil disobedience."

"Meaning—?"

"We stopped the road in '82 by chaining ourselves to the bulldozers. The federal judge put a condition on my probation that I never reenter the area." He shrugs. "I've been living up here every summer since then. You know, to sound the alarm if the bulldozers come back."

I shift uneasily on my log. Lou is breaking the law just by being here. On the other hand, I can't help thinking about the Grassy Knob Trail, which was bulldozed into a useless logging road while conservationists wrung their hands, and the Agness Trail, which is being turned into a logging road at this very moment. Now here is a Bald Mountain road, drawn on the map in such a way that it would clearcut the absolute center out of the proposed Kalmiposis-Wild Rogue National Park. The remarkable thing about the controversy, it seems to me, is that this road has been stopped, half-built for three years by a black-bearded hermit who serves spaghetti to strangers.*

"What do you do while you wait?"

"Oh, a lot. The first summer I backpacked out half a ton of glass and metal left after they burnt the old fire lookout tower. Last year I fixed up the trails, and rolled up five miles of wire from the old lookout telephone. This summer I found a rusted motorcycle up here. I'm tearing it apart with WD-40 and box wrenches, packing it out piece by piece."

Mention of the motorcycle jolts loose another memory for me. Seven years ago I had met a motorcyclist on the Illinois River Trail. I had asked the man if motor vehicles weren't prohibited there, and he had nodded but said he was hired to patrol Bald Mountain for lightning fires.

Then he had grinned and confided he was growing a little patch of marijuana on the mountain too.

Lou nods when I tell him. "Could be the same bike. This one was by a spring with a clever little marijuana irrigation system."

Then Lou strokes his bushy black beard thoughtfully and looks straight through me. "I have a deeper calling here. Most of my time is spent learning the Earth."

I hesitate. "How do you learn the Earth?"

"Every evening I have an appointment with the sunset. I sit in the medicine circle I've built on the summit and meditate in the four directions until dark. In May, when the snow has melted enough for me to set up camp here, the dark comes early. In those days it rains and stays below 35 degrees. Then I hike the Pilgrim's Trail I've been roughing out. The route is a vast square, connecting four peaks in the four directions." As he speaks, he points across the canyon to mountains, which I know, can only be reached by swimming the Illinois and scrambling up 3,000-foot canyon walls.

"I study my fellow animals. I watch the plants. I pray. That is how I learn the spirits of the Earth."

He looks to me again. Now it is clear to me why Lou has risked his liberty to camp here: He does not merely love the wilderness as I do, he reveres it. It is everywhere alive. I have unwittingly hiked into the temple of a strange guru.

Suddenly he releases me from his gaze. "So what have you seen on the trail today?"

"Well, I met four bears on my way up."

He lifts an eyebrow. "What were they eating?"

I think back. "There were reddish-brown berries in their droppings. And they left torn-up Ponderosa pine cones all over the trail."

"Yes, it is time they began eating pine nuts and manzanita berries. Manzanita berries will only grow after they have been passed by a bear. In May the bears were up on the summit prairies, eating grain from the grasses. In June they got a taste for protein and began digging up yellowjacket nests. In July they went downhill after rodents and fish. Now they are returning to the mountain."

Lou stands up and takes a towel off a line. "Dinner is after my solar shower. I'm afraid there's only water for one."

He crosses the meadow to a black water bag hanging from a limb in the sun. He shucks his clothes with a shrug and turns on the water from a spigot below the bag.

I am writing in my journal when he

* Since my hike, an Oregon conservation leader (who opposes Lou's illegal methods) confided that Lou's presence not only has stopped the Bald Mountain Road, but that the initial Earth First! road blockade sparked a lawsuit over the Forest Service's handling of roadless lands throughout the West—a lawsuit which led to the substantial Oregon Wilderness Bill of 1984.

returns to fetch clean clothes off his line. "Didn't you hear anything?" he asks.

"Hear what?"

He points out a pair of shredded socks in the middle of the clothes line. "The mice walked the line and ate the toes out of my socks while you were sitting there."

"I'm sorry."

He shrugs. "It comes, it goes."

It only takes him ten minutes to light the fire and cook the spaghetti. The sauce is meatless and full of odd leaves and spicy berries, yet it is amazingly good. I tell him of my trip, and in return he tells me about himself.

Lou grew up in Chicago, then took a degree in political science from Columbia University in New York City. He taught fiery political science courses for eight years at Oberlin and Illinois, back in the late '60s, when colleges were scrambling for political reverence in the face of anti-Vietnam protests. Then came the issue of tenure.

Lou searches for words. "The university and I finally conspired to liberate me from it. I've never been sorry. There were parts of me and parts of the universe that were best explored by getting out. I did carpentry for six years, and then wandered for a while. I visited friends in southern Oregon. I wasn't here three days before I realized everything I was looking for in the universe could be found right in the Illinois Valley."

"Then you spend the winters here too?"

"Not on Bald Mountain. In a community on the Upper Illinois, toward the high Siskiyous. I live in a yurt on a friend's land."

"Do you still support yourself with carpentry?"

"My needs are few. Two nights a week I fire up a little sweat lodge, and people come. Not for money, of course, but they sometimes bring gifts. It's like here at Bald Mountain. When I need food, it comes. When I have enough, I share."

As soon as I clean my spaghetti bowl, I thank him for the dinner, but tell him I have to hike a few miles yet today. I share a few pieces of hard butterscotch with him—it is all I have to share—and assemble my pack.

"Wait," he says, and walks to the row of decorated sticks leaning against the tree. "Everyone who visits Bald Mountain takes a peace stick. Each stick has seven colored ribbons, representing the four directions, as well as the Earth, the Sky, and the Sunset Breeze—the spirit at the center. Choose the one that touches your spirit."

I look over the sticks with some misgivings. They are between four and six feet long—straight, and freshly barked. It occurs to me that they might serve as walking sticks, but I have always shunned walking sticks as just one more thing to carry. But it also

occurs to me that he has an awful lot of sticks, and probably very few visitors. I take the lightest stick and thank him for his generosity.

The trail passes the summit of Bald Mountain. White rocks are arranged there on the ground in the shape of a 50-foot wheel with four spokes. Lou's prayer site, I realize, straddles the Wilderness boundary. Sticks like the one I am carrying mark the cardinal directions on the rim of the circle, their ribbons fluttering in what will soon be the sunset breeze.

2:02PM. Baldface Creek. 87° F.
Mileage so far today: 16.5. Total: 145.9.

The trail down from the ridge toward Baldface Creek is indistinct, as though no one had been to this corner of the Wilderness for a decade. I lose the trail, but my tongue is now swollen and rough, so I crash headlong down through the manzanita. At 1:15 the trail is found again. At 1:40 I hear water!

And then, just 50 feet before the creek, there is a rope stretched across the trail. A bristling, black Labrador dog stands guard at the rope. It curls its lip, baring yellow teeth.

I back up very slowly. I try to call, "Hello?" but my dry throat only makes a hoarse, rasping sound.

The big dog growls threateningly in reply. Now I recognize one of the bushes ahead as a camouflaged shelter straight out of the jungles of Vietnam. Rifles are slung from its branches. Camouflage combat ration cans and ammo boxes are stacked in the shadows. Beer cans are heaped to knee depth behind the shelter. I back up further, my heart beating rapidly.

When I am out of sight, I sag against a tree. Whoever built the ominous camp in the trail has left the dog as a guard. But I must have water. I decide to circle the camp, cross the creek, and strike the trail on the far side.

I creep through the woods, jump down the creek's 10-foot-tall bank, and cross on boulders. Then I drop my pack and pour handfuls of water down my throat and over my head. I splash the glorious water over my chest and arms. I take off my boots and soak my feet until the cold makes them ache. I am just opening my pack for my granola, when a sharp voice makes me freeze.

"Hey!"

On the bluff, where I first reached the creek, is a tall, skinny, red-bearded man in combat fatigues. He wears a large pistol in an ammunition belt at his waist. Two big Labrador dogs watch me from his side. The man's hands flutter nervously between his beard and his belt.

"Hello?" My voice is back, but it cracks badly.

"Hey, I mean," the man says, shifting his weight from foot to foot. "Who are you?"

"I'm just hiking through."

He bounds down the bluff and walks with long, springy strides all around me and my backpack. "Shit, man, we've got to talk at least."

"Well, I—"

"Goddam it, Dumptruck!" He kicks a dog sniffing my food bag and sends the animal flying. "I mean, come on up to camp. I'm gonna have lunch. I mean it." He gives me a piercing stare.

I believe he means it. "Lunch. Alright."

He watches me so carefully on the way to his camp that I wonder if I am to be his guest or his prisoner. My first guess about him is not reassuring: that he's a shell-shocked vet, turned lunatic in the woods.

"Well shit, sit down," he says, waving to some stumps around a fireplace of stacked rocks. Now I can see how very tall he really is—probably six-foot-six. His camouflage T-shirt hangs over his thin, bony frame like a sheet on a hat rack. "You want coffee? I got coffee. I got cocoa, tea, lemonade, you name it. Out of beer."

"Cocoa sounds all right."

"Jesus, cocoa? Hey, whatever, man." He lights a fire, still eyeing me warily.

I risk the question. "Uh, what are you doing, camped out here?"

"Fishing, mostly."

I nod and look about the camp. There is no fishing pole—no fishing gear at all. But now I notice a six-foot blowgun of South American design leaning against the brush shelter wall, below the rifles. I shiver.

He returns the question. "So, what are you doing, man, hiking around? I always walk on the rocks beside the trail, to keep track of things, you know, and when I saw your tracks, I thought, hey, wow."

"I'm backpacking the length of the Kalmiopsis." It's true, and sounds more likely than my larger New Oregon Trail scheme. "I've been out seven days. You're the first person I've met for two."

"Oh, yeah?" He breaks into a toothy grin and extends a long arm to shake my hand. "Well, then it's good to meet you. My name's Ron."

"I'm Bill." We shake hands, neither of us at ease.

"You've been here a long time," I comment.

"Shit yes," Ron says, rolling a cigarette. "I got here in May. It rained eleven days straight. That creek was six feet higher, and there was nothing I owned that was dry. Even these drums of supplies, even though I had 'em covered. That's why I built this shelter. You smoke?"

"No, thank you."

"Smoke pot?" He raises his bushy red eyebrows at me.

"Not really."

"I don't either, usually, except for one in the evening."

I am writing all I can down in the journal—which seems to be making him extremely nervous. “Why did you decide to camp clear out here?”

“Oh, hey,” Ron says, suddenly smiling again. “I wanted to get as far away as I could. People said, ‘Aw, you’ll be back in a month’—but it’s been four. Every day here I wake up in the morning and I say, ‘I own my own day.’ I never owned my days in the city. It’s a richness.”

Ron fits his cigarette onto a thin plastic tube before lighting up. “Gotta have this holder in the morning or coffee drips down your mustache and sogs up your cigarette until it falls apart in your breakfast.

Under a tarp I can see a huge stack of Spam, sardine cans, Dinty Moore stew, and the like. I am used to carrying my food, and this looks awfully heavy. “How did you pack in your supplies?”

“I took five trips in with a horse and a burro. I live off the land, too. Brought my 30-30, my 22’s, and my shotguns. Not sure I’ll shoot a deer—seasons don’t bother me, but I couldn’t even jerk all the meat before it’d spoil. I use the blowgun to pick off mountain quail. There’s a covey of about 18 that come right into camp. The shotgun would scare them off, but with the blowgun they keep coming back.”

Whatever caution Ron first felt about me seems to have been overshadowed by his obvious need to talk. However, I can’t help thinking his story still has flaws. “Have you ever been in the service?” I ask.

“Shit, I joined up with the Marines in ’62. That was right after Kennedy’s showdown with Cuba, and I figured we’d have a war down there. Damned if they didn’t send me off with the first bunch to ‘Nam, instead. Did two tours. When we all got off the ship in San Diego in ’66 we were like a bunch of pressure cookers, all stoked up. And there on the dock were hippie kids throwing tomatoes at us. Shit, we just stared at ‘em, didn’t know what was going on.”

He mixes up my cocoa and starts cutting up a beef sausage with a big bowie knife. “This country’s full of wah-wahs, complaining all the time. Nobody’s got guts anymore, they’re just chicken shits. You know, Reagan’s the first President we’ve had with balls. The Libyans started fucking with us—he shoots down their jets. Christ, think of it—we won one, finally!”

I steer him away from politics. “What did you do after you got out of the Marines?”

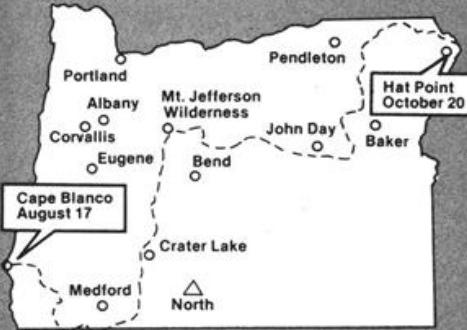
“Got a job selling cars at a Plymouth dealership in southern California. Did that five years, then put in another five years selling mechanical seals and packing for hydraulic pumps. Shit, man, I’ve seen it all. In ’73 I bought a house, got married, had a son, and got Dumptruck here.” He prods the dog in the ribs with his Army boot. “Then I got

rich. And I mean rich.”

I am about to ask “How?” but it is unnecessary; he has already continued.

“I saw this ad for diamond brokers, you know, in a magazine? I thought it was crazy, but I was going crazy, too, doing what I was doing—my wife had divorced me by then—so I called them up. I tried it for a week, selling diamonds,

THE NEW OREGON TRAIL



rubies, and sapphires over the phone as investments. I made 3,600 fucking dollars that first week! I ditched my old job and started living *high!* I bought three houses I commuted between, and two tricked-out rigs. Then the diamond investment scene fell apart.”

While he’s talking, a skinny horse has walked up and stopped at the rope at the edge of camp. It licks a frying pan lying in the dust there. “That’s Joe,” Ron says, with a wistful smile. “Lean and mean, just like myself.”

Ron sighs, and goes on. “So I went into strategic metals. I got rich all over again for a few years. Shit, I didn’t think anything of an eighth ounce of coke every Friday night. But when gold and silver crashed, too, I was back on the street. About then my folks moved to Southern Oregon, and I saw this Kalmiopsis Wilderness on the map nearby. I thought about parachuting into the Alaska backcountry instead, but I didn’t have the cash.”

I am eating sausage on crackers. The more I hear of Ron’s story, the more it seems like something he could hardly be making up. Yet I wonder. “You must have a lot of time to think out here.”

“Shit, yes,” Ron says. “You know, we only use ten percent of our brains. Out here, you can learn to use more. The Druids did, and they could communicate by mental telepathy with animals, plants, any living thing—that’s the way. You can learn it. You can do anything if you can just flush down the toilet all the ‘you can’t’ garbage they fill your mind with in the city. Every person I’ve met out here has been a neat person, but look at all the screwballs in the cities! Jesus, am I

glad they don’t get out here.”

Dumptruck snaps lazily at a fly on top of his head. No luck. Then he tries as it buzzes past, succeeds, and munches it. He lies flat again.

My writing hand is getting sore. “Have you seen many people out here since you came?”

“Just five. Truth is, all the others turned out to be marijuana growers. But I don’t give a shit. They’re nice folks, and they’re not hurting anybody. So I say, more power to ‘em. Course the cops see it different. Ptrtrtrr—” he makes an engine sound, and his flattened palm flies in toward me, “—a chopper came up the crick last night, looking for pot. First time since I’ve been here. It’s no big deal, though. The cops come and pop the growers every so often, but not much, and no one ever gets jailed. The cops just stuff their four-wheelers with pot, drive down to the coffee shop in Cave Junction, and leave it parked there to show off. None of the growers here are big time anyway. Mostly they drive in from Eugene on weekends to check their automatic drip irrigation systems. Big time operations? Shit, they’d rent a warehouse and put in ‘grow’ lights.”

There is a pause—the first pause in Ron’s conversation since we sat down together almost two hours ago. I wait.

“You know,” Ron says, looking at me with narrowed eyes. “I don’t think you’re a cop after all.”

“I’m not.”

“Well, I’m gonna tell you something. I’m really growing a little marijuana out here.”

I nod. The pieces of the puzzle are starting to fit together better. “So you were worried at first that I’d come out here to bust you.”

“You’re not gonna, are you?”

“No.”

“And all the notes you’re taking?”

“It’s just my journal.”

Ron leans back, laughing, and runs his hands over his face. “Jesus Christ, after that chopper came over last night, and I saw your tracks, I thought they’d dropped some weird SWAT team up on the ridge. I’ve been waiting for cops to jump out of the bushes. God, you had me going!”

I have a sobering thought. “But if you thought I was a cop—you could have shot me.”

Ron laughs again. “You don’t shoot cops, man, you shoot pot pirates. You gotta be all friendly with cops. If you’d asked about the marijuana plants up the hill, I would have shrugged, ‘What plants, man? I’m just fishing.’ I’m clean. This is public land.”

“How did you know I wasn’t a ‘pot pirate?’”

“Shit, only cops would come in broad daylight. Yeah, if you’d come at night, I probably would have blown you away.”

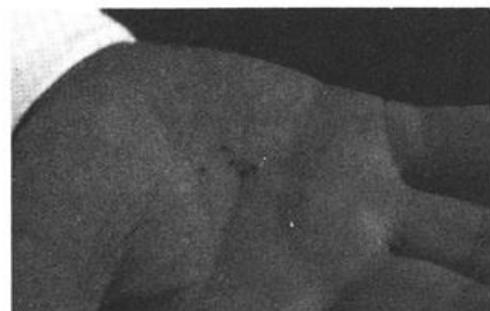
HOME GROWN PEYOTE

Story and photographs by Robert Miller

My first contact with peyote was in 1972. I packed my camping gear and a copy of *The Teachings of Don Juan* into my battered VW van, and headed to Texas in search of an organic path to an alternate reality. (We talked like that in 1972.) Texas was alien territory for ponytailed Californians driving VW vans in the early '70s, but I arrived in Rio Grande City, Texas, without any serious hassles. My real problems began the day after my arrival, when I started searching for peyote. I quickly learned that peyote isn't like the cactus you see on a cover of *Arizona Highways Magazine*. It's a fat, little, ball-shaped cactus that hides under the shade of spiny shrubs and thorny bushes, the same places snakes and tarantulas like to spend

their day. Peyote may be spineless, but every other plant in Texas is covered with them. My first day of searching turned up a diamondback rattlesnake, lizards, spiders, and a heat rash, but no peyote. I didn't give up. On the second day I discovered a clump of three plants growing in the shade of a small shrub. The following day I found half a dozen more plants for a total of nine in three days of hard searching.

Even fifteen years ago peyote was difficult to find in the wild. Its growth is restricted to the southernmost limits of Texas along the Rio Grande Valley, and extends for a considerable distance into Mexico. The plump blue-green body sits barely above the ground during



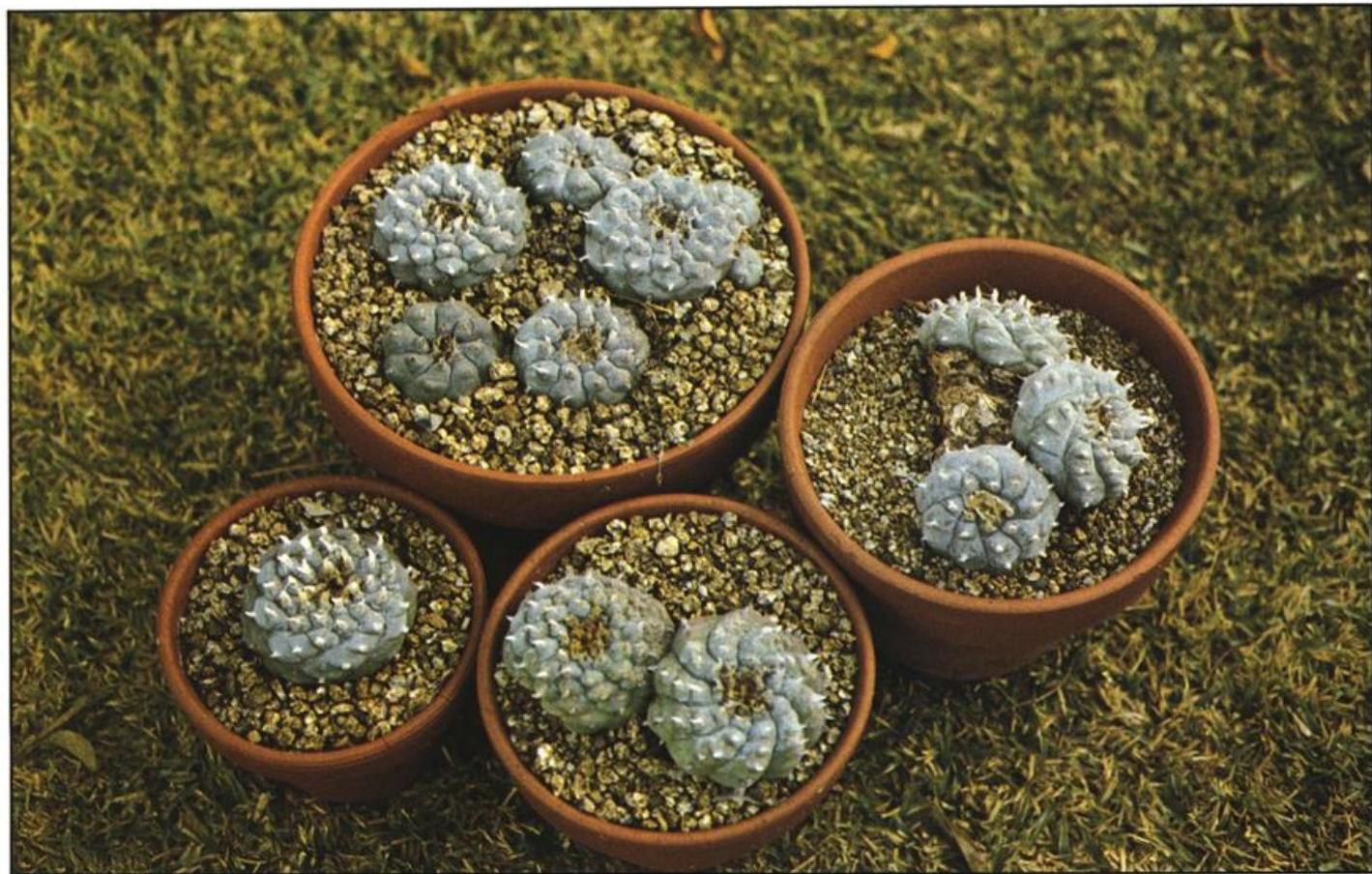
Peyote seeds are tiny. Life in the Chihuahuan Desert has inbred the ability for peyote seeds to lay dormant for years and still remain vital.

the rainy season, and during the dry season shrivels up and almost disappears beneath the sand. The first plants I found were given away by their bright pink fruit, otherwise I would never have seen them.

The evening before I left Texas I



A cresting form of peyote. Cresting occurs when the plant's growth tip loses control of the growth regulation process and begins spreading laterally instead of upward. This very old and beautiful plant has produced a normal offset at the very base of its caterpillar-like tip. Cresting is fairly common among cactus and doesn't seem to harm the plant.



A collection of mature peyote clusters.

decided to sacrifice a couple of my hard won trophies. I sliced the plants into wedge-shaped pieces and carefully removed the little tufts of wool which I had heard would make you sick. Eating peyote is not love at first bite, especially fresh, slimy peyote. The chokingly bitter taste is nauseating. I quickly learned my apple-sized wedges were too large to eat without chewing, so I diced them into small chunks and swallowed them whole with some juice. After about twenty minutes, with the help of a couple of joints, I was beginning to come on. After about an hour I lost the battle with my stomach and was convulsed with nausea. What I'd worked so hard to get down, came up quickly. When my stomach began to stabilize, I was able to close my eyes, enjoy the beautiful warm Texas evening and experience a sense of closeness to an ancient Indian culture that I could never really begin to know.

The next morning I packed my remaining plants into a sack and headed back to California. I guess I figured I'd eat the rest of my plants

on some future occasion, but I never did. Maybe it was because I'd gone through so much to get them, maybe it was because they were somehow a special link to those ancient Indians, or maybe it was because I'd puked my guts out the first time I'd eaten them. Whatever the reason, I stuck them in a couple of clay pots and forgot about them. Miraculously, they survived the neglect, and bloomed faithfully every year.

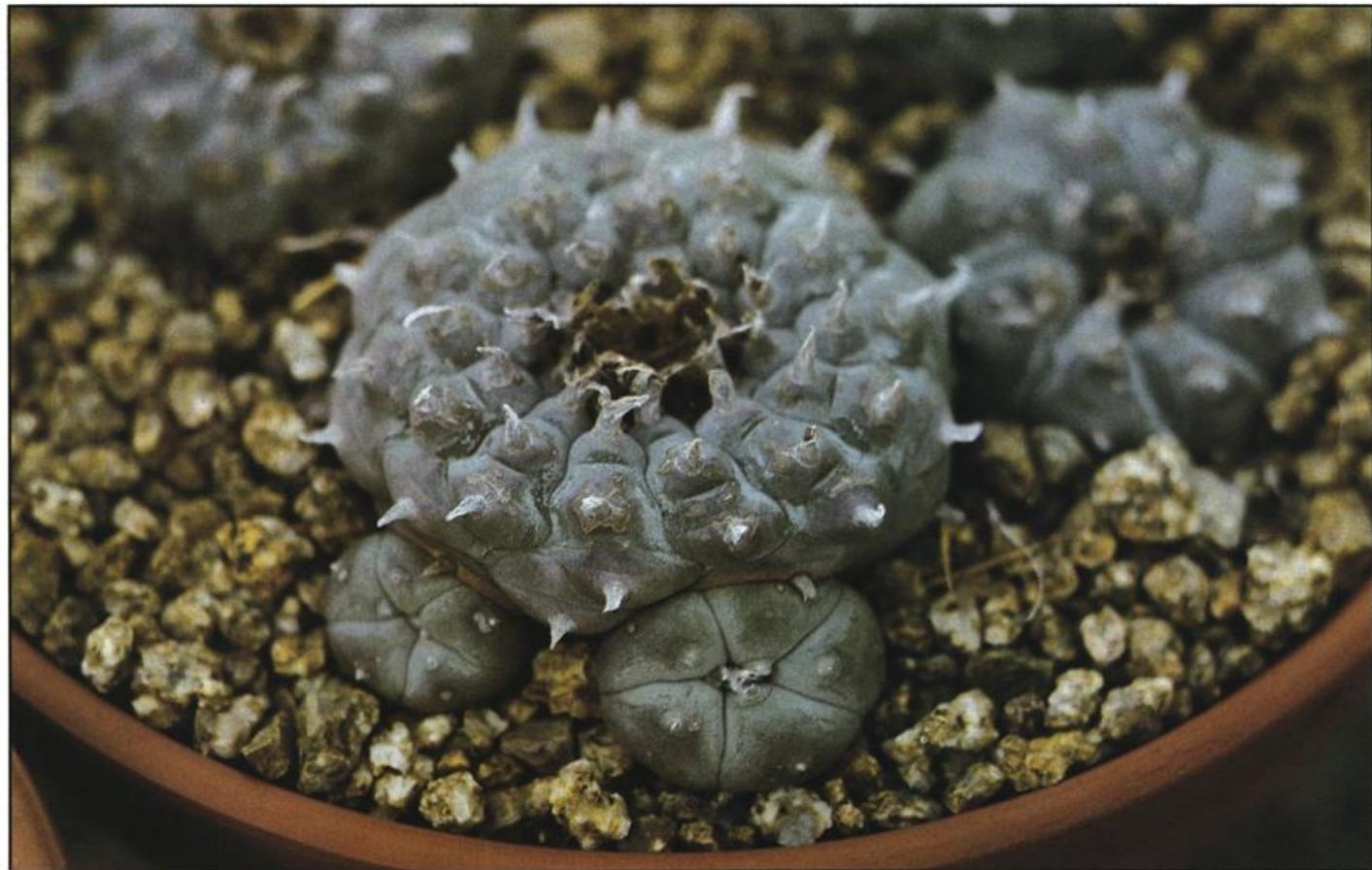
In 1980 I renewed my interest in plants after meeting a woman who was into cactus. Unfortunately the interest outlived the romance, but my peyote found themselves the main attractions of a large greenhouse I'd built in the backyard. I was anxious to add more cactus to my budding collection, so I headed back to Texas, through Arizona and New Mexico. I collected enough cactus to nearly fill my greenhouse, but during a week in Texas I couldn't find a single peyote.

Disappointed, I returned to California and began to do some research on the endangered plants. Peyote used to be relatively common

across Southern Texas, but, over the past decade, collectors, dopers, Indians, and narcs have nearly exterminated the plant on both sides of the border. Even the Indians of Mexico, whose culture is inextricably tied to the peyote ceremony, have had to start buying their plants because peyote can no longer be found at traditional gathering sites.

I decided to begin a serious effort to raise peyote from seeds off my original Texas plants. My success in growing this endangered cactus might prove the key to its survival during this period of antidrug repression.

I was lucky. I had mature, seed producing plants to work with. The most difficult part of growing peyote turns out to be getting vital seed. Packets of seed can be purchased from cactus specialists in Europe. The British seed firm Thompson and Morgan offers ten seeds of *Lophophora williamsii* (peyote's formal name) for \$3.95 in its 1987 catalog. If you have access to a plant, seed collecting is easy. Peyote



A peyote which has produced two offsets. An old clump in the wild might have 20 heads or more. Offsets can be detached with a sharp knife and potted up.

produces mature fruit nine months to a year after flowering. The cylindrical fruits are 1/16th of an inch long and contain about six seeds. The fruit dries and shrivels up, leaving the seeds inside the woolly topknot. They can be plucked out using a pair of tweezers.

The seeds germinate readily, but unless you know what you're doing, they won't survive two weeks. To propagate, get a small clear plastic tray with a top. The trays that strawberries are sold in are ideal because they are transparent and have holes for air circulation and drainage. Fill the trays with an inch of damp vermiculite. This material is good because it stays damp and removes the hazard of having to water the extremely fragile seedlings.

Sprinkle the tiny black seeds evenly across the surface of the vermiculite. Don't try to cover them. If your seeds get buried they won't be able to push themselves to the surface. You can easily push the roots into the vermiculite with a

toothpick, once the seeds have germinated.

I've had over a 90% success rate using this simple germinating tray, a remarkably high rate for such an exotic and rare cactus.

Once your seeds are on the damp vermiculite, cover the tray with its protective cap and leave it in a warm, bright spot, out of any direct sunlight. Maintain a temperature of between 70 and 90 degrees F. Within two weeks you will see the seeds beginning to germinate. Be careful when you take the lid off to check your plants. Even the slightest jarring can bury them.

Peyote, like many forms of rare cactus, is painfully slow-growing. A mature, baseball sized plant can be thirty years old. You can double or triple the expected growth rate of wild plants through careful cultivation. Remember though, a tripled growth rate is still a slow growth rate. Growing peyote requires patience. If you want fast growth and a quickly available high you better stick to raising pot.

To improve the growth rate you need to understand how Lophophora grows in the wild. Peyote is an extremely succulent cactus. It thrives in areas of hot, rainy summers and cool, dry winters. It does not like direct sun, preferring the broken shade under the shelter of a shrub. It won't thrive in an acid or neutral based soil. It is often found growing in nearly pure limestone soil. Peyote does not like cold weather; however, my plants have survived 30 degrees F with overhead protection and dry potting soil. Cactus can survive colder temperatures as long as they are kept very dry. My plants have also endured temperatures of 120 degrees F in my cactus house, benefitting from frequent watering and shade cloth. Ideally you'll provide your plants with a temperature range of 45 degrees to 100 degrees F. Try to match the weather patterns of peyote's native Chihuahuan Desert. Hot and damp in the summer and cool and dry in the winter. One British cactus



A flowering crested peyote. Crests occur when a plant's growth tip begins to spread laterally instead of upward. It is a growth abnormality fairly common in some species of cactus.

collector would only water her plants after her Mexican friend would call her and tell her it was raining in the desert.

Three months after germination your plants will start to develop wooly topknots and begin to resemble mature peyote. After a year they will be the size of a raisin. You will be able to see a pattern of small irregular "ribs" appear along the sides of the plant. These ribs are an extremely interesting feature of many succulent species. They allow the plant to expand and contract with the availability of water. As your plants get older pay attention to these ribs when watering. If the ribs are fully expanded don't water unless you want to split the plant open like an over ripe melon.

Year-old seedlings are ready to move out of the germination tray. This task is best done in late spring, when new growth is obvious. Use a larger version of the germination tray if possible. Mix coarse builders' sand with a pinch of garden lime and a small amount of good potting

soil. Increase or decrease the ratio of sand to potting soil, depending on how humid your climate is. Don't use dirt. It isn't sterile and can cause disease and fungal infection which can kill your plants.

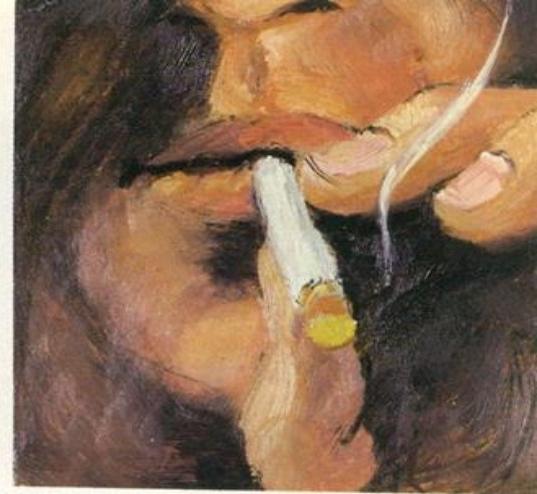
Peyote has a long turnip-like tap root, so be very careful when lifting your seedlings out of the vermiculite. Punch a small hole in the sandy mix using a large nail, then gently lower the small plants into the hole. If particles of vermiculite are attached to the rootlets, leave them on. If you try to brush them off you will damage the roots. Firm the sand around the tap root, using care not to set the neck of the plant deeper than it was growing in the vermiculite. Space the plants evenly about a half-inch apart. They'll remain this way for the next two years. (I warned you: peyote cultivation is an act of patience.) Once you've potted your plants into the larger tray, dust a slow release fungicide over the surface. The high humidity of the tray can cause fungus dampoff, if you aren't

careful. Water from below by placing the tray in a shallow pan of water and letting the water rise to the surface.

By the fourth year, the peyote can be potted into two-inch individual containers, using the same sandy soil mix. When repotting, attempt to lift the plants without disturbing the soil around the tap root. By the fifth year, your walnut-sized peyote will begin to flower and set seed.

This process may seem painfully slow, but it is fully twice to three times the growth rate of seedlings in the wild. After all this effort, I doubt you'll want to eat your plants. Besides, a five year old plant can bring as much as \$100 from a cactus collector.

I am convinced that if this mythical and potentially valuable medical plant is to survive, it will be with the help of conservationists. I'm planning on returning to Texas and planting some seedlings near the place where I found their parents 25 years ago. ●



How to Recognize a Non-Commercial Marijuana Growing Operation

by Wes Juliana

You're probably asking yourself: Why would anyone want to recognize a non-commercial marijuana growing operation?

The reason is the law in California (and some other states) "recognizes" a big difference between a commercial operation and a non-commercial operation. If you ever have the misfortune of being busted it could play an important role in your defense. Right now in California, cultivating marijuana is a felony with a maximum penalty of three years in state prison and/or a \$10,000 fine. Along with the cultivation charge, you will probably get charged with possession of marijuana for sale, a second felony charge that carries the same maximum penalty as the cultivation charge. Other states have similar and sometimes much harsher penalties. (Check with your attorney or your local law library to find out what the maximum penalties are in your state.)*

You don't want to be convicted of felony charges because in addition to the maximum penalties and the loss of civil rights that go along with any felony conviction, you will be a convicted drug felon. That means drug-testing and registering as a drug felon at the local police department. Every time you move you will have to go to the local police department and tell them that you are a convicted drug-user/seller, and your new address. This is pretty heavy baggage to be carrying around for growing a few plants.

Luckily for Californians there is P.C. 1000, a section of the penal code which allows a drug offender to be diverted from prosecution for purposes of education and treatment. (Again, check with your attorney or local law library to find out about similar programs in your state.) California's P.C. 1000 defines the drug offenses which are eligible for diversion and the criteria for determining eligibility. Not all drug charges are divertible. For instance, if you are charged with a violation of Section 11358 of the Health and Safety Code (cultivation of marijuana), the offense is divertible if, and only if, the marijuana planted, cultivated, harvested, dried, or processed is for personal use. In other words, if it was a non-commercial marijuana growing operation. By charging you with the additional offense of possession of marijuana for sale, the cops are making you ineligible for diversion. Possession of marijuana for sale is not a divertible offense.

* To obtain information on how marijuana laws differ from state to state, call NORML at (202) 483-5500.

What's the big deal about being diverted from drug offense charges? Well, aside from not being busted at all, or having all of the charges against you dismissed, being diverted is the best thing that could happen to you. If you are diverted, the charges against you are set aside for a probation period and when you successfully complete the terms of your probation, the charges are dismissed. The state is giving you a chance to redeem yourself. Of course, there are strings attached (see sidebar below).

other drug offenses during the probation period your diversion will be cancelled. This might sound harsh and unacceptable—giving up pot, being drug-tested, and eating humble pie, but it is a lot better than the alternative—getting convicted of felony charges, which would have all of the same probation conditions, plus jail time, fines and a criminal record.

"Okay, I'll do it, I'll accept diversion, but the cops are saying that I had a commercial operation, that the pot I was growing was for sale. How do I get

Conditions for Obtaining a Diversion

- 1) You cannot have a conviction for any offense involving a non-divertible controlled substance prior to the alleged commission of the charged divertible offense
- 2) The offense charged did not involve a crime of violence or threatened violence
- 3) There is no evidence of a violation relating to other non-eligible narcotics or controlled substances
- 4) You have not had probation or parole revoked without it thereafter being completed
- 5) You have not been diverted within five years prior to the alleged commission of the divertible offense; and
- 6) You have not had a felony conviction within five years prior to the alleged commission of the divertible offense.

If you can meet all of the conditions and you are willing to accept the terms of probation, you could be diverted. The terms of probation will require you to quit smoking and growing marijuana, submit to drug testing and attend drug rehabilitation classes. Drug classes are similar to the classes people convicted of DUI are required to attend. They talk about drug addiction and try to convince you that smoking pot is bad for you and society. They might even show you *Reefer Madness*. You also could be required to do volunteer work at some non-profit organization in your neighborhood. The probation period is usually from one to three years, and, it should be clear, if you are busted for any

diverted when the cops are not cooperating?"

You'll have to convince the court that the plants you were growing were for your own personal use. This brings us back to our original question. How do you recognize a non-commercial marijuana growing operation?

Recognizing a non-commercial operation is a three-step process. The first step is estimating the potential yield of the crop. The second is determining how much pot you smoke and if that quantity is equivalent to the potential yield of your crop. The third involves identifying the factors that can be used to distinguish between a commercial and a non-commercial operation.

To estimate the potential yield of a crop one must consider the conditions under which the marijuana was grown and the obstacles that have to be overcome for a grower to be successful. Some of the growing conditions and obstacles to consider are:

How to Estimate Your Yield

- 1) the topography and vegetation of the area where the garden was planted
- 2) the amount of sunlight that would reach the plants
- 3) the fertility of the soil used
- 4) the amount and availability of water
- 5) the microclimate of the garden area and local adverse weather conditions such as wind, rain and other forms of precipitation, droughts and freezes
- 6) the large and small animals in the area that eat marijuana
- 7) plant-eating insects of all types, including soil and borer pests
- 8) the variety and vitality of the seeds used and how well the seed stock is adapted to the garden's microclimate

All of the above listed conditions and obstacles can and do limit the potential yield of a marijuana crop. Also, because the roots, stalks and seeds contain none of the psychoactive chemicals that marijuana is consumed for and the fact that 70 to 90 % of the weight of a freshly harvested marijuana plant is

water, the amount of usable marijuana is only between 2½% and 5% of the weight of a freshly harvested plant. Some other factors to consider are: the size, sex and age of the plants on the date of the bust, and the grower's gardening experience and personality.

- 9) the biological tendencies of the plant. Biological manipulation is required to grow sinsemilla marijuana. Sinsemilla is a Spanish word meaning "without seeds." The process involves eliminating the male plants before they pollinate the female plants. Sinsemilla marijuana is preferred because it is more potent than seeded pot
- 10) Man: including thieves who not only steal plants from gardens, but also go after processed marijuana. And law enforcement campaigns to eradicate marijuana gardens; and
- 11) the amount of equipment and energy the grower used to deter predators and control the growing conditions.

The wide variety of variables make plant yields vary greatly. Common plant yields range from two grams to two pounds. To estimate the potential yield of a marijuana crop can be very difficult and it usually requires the experience of an expert. Two of the leading experts in the United States at estimating potential

yields of marijuana crops are Ed Rosenthal, co-author of *Marijuana Grower's Guide*, and author of several other books about marijuana and Bill Logan, attorney-at-law and a recognized marijuana expert from Three Rivers, California.

As you can see, to estimate the yield of a potential crop takes a lot of information. Where does all this information come from? One source of information is the police who raided your garden. They take photographs and write a report about what they found. Most police reports exaggerate the size, weight and value of the plants. They may do this out of ignorance, to justify their large eradication budgets, or just to make a better case in court. If they do exaggerate, you can combat it in several ways. You can inspect the confiscated plants. This is the best way to obtain information about the plants, but, unfortunately, most law enforcement agencies destroy confiscated marijuana plants. If the plants have been destroyed, the law requires the police to take photographs that reasonably depict the entire amount of destroyed marijuana. The photographs are usually not that good, but valuable information can often be obtained from bad photographs. They are also required to retain a sample and the sample can supply valuable information.

Another way to get information about the size of the plants and the potential yield of the garden is to send a defense investigator to the eradicated garden. Most law enforcement agencies cut the plants down leaving the stumps and root-balls. The size of the stumps and the root-balls can give a good indication of the size of the plants. While your investigator is in the garden he/she should check the size of the holes or containers that the plants were grown in and how far apart the plants were. Also, the investigator should record information about the growing conditions and obstacles I have outlined above. All of these factors need to be considered when estimating the potential yield of the marijuana crop.

Why are we spending so much time, energy and money estimating the potential yield of your marijuana garden? Because no judge is going to believe that you were growing the garden for your own personal use if it was expected to yield 25 pounds of buds worth \$85,000. Believe it or not, the Department of Justice is saying that one plant yields one pound of top-quality sinsemilla buds worth \$3,400 a pound. So your 25 little plants are suddenly worth

\$85,000, and that makes you a big-time commercial marijuana grower. There are very few cops who are willing or experienced enough to dispute the Department of Justice's figures. As I explained earlier, the bigger the bust, the better it looks in the records, and a good record helps get a bigger budget for next year. It also looks good in the news:

"Local police department eradicates large marijuana garden and arrests big-time grower."

To dispute the Department of Justice's figures you need a defense expert who can look at the totality of circumstances and come up with a realistic estimate. And the estimate should be under three pounds per person, the upper limits that most courts are willing to accept as an amount that could be consumed in one year. Certainly it is true that some growers smoke more than three pounds per year

and that other growers try to grow a stash that will last them several years, or the grower might have just gotten lucky and produced plants that are bigger than they ever expected. But the courts are skeptical of these realities and are reluctant to consider any kind of explanation for having a crop that is larger than they think the grower(s) can consume in a year.

How do you figure out how much a grower can consume in a year? By using common sense and mathematics. The average joint weighs approximately half a gram. There are 28 grams in an ounce, 16 ounces in a pound. That means there are 56 joints in an ounce and 896 joints in a pound. That averages out to 2.45 joints a day, per pound, per year. This does not take into account the fact that part of the weight of a pound is unsmokable sticks and sometimes unwanted seeds.

Individual tolerances and smoking habits dictate how many joints are consumed in a day. Six joints a day is not uncommon for a person with a cheap and abundant supply, and that is what a grower has. When all factors are considered six joints a day equals, roughly, three pounds per year. I have

spoken to individuals who said they smoked 12 joints per day, or approximately six pounds per year. The exact amount of pot that you smoke is something you probably have not thought that much about. If you are planning a personal use defense, it is something you should think about.

Another estimate you should think about is how much pot you were expecting to get from the busted garden. Most growers are not very good at estimating yields, they just plant the plants and hope for the best. This is okay as long as the potential yield is reasonable. Beyond estimated yields what we are really talking about is intent. What were your intentions: To sell the garden or smoke it? Only you know the answer to the question, but certain physical evidence will help the rest of the world read your mind. By reading the evidence we can determine if your operation was a commercial or a non-commercial operation.

Commercial operations tend to be large, well organized and they use expensive equipment. Usually, a commercial operation will have the following characteristics:

Recognizing a Commercial Operation

- 1) A greenhouse to start the plants in, with starter trays and plant pots that are filled with potting mix
- 2) Large gardens that are away from the residence
- 3) Tight fences around the gardens; elaborate plant supports and animal deterrents
- 4) Plants in large holes and/or containers filled with powerful fertilizers
- 5) A sophisticated watering system that includes pumps, holding tanks, timers, chemical feeders and drip-irrigation systems

- 6) Drying sheds and processing areas with heating and dehumidification systems, manicuring scissors, scales and packaging materials
 - 7) Other support equipment such as all-terrain vehicles, scanners, citizen-band radios, alarm systems and camouflaging materials
 - 8) An excess of materials which usually includes extra fencing, water pipes, fertilizer, plant pots and miscellaneous hardware
 - 9) An unusually large number of gardening tools
 - 10) Business records which list transactions, expenses and work assignments
 - 11) Large amounts of cash; and
 - 12) Processed marijuana of exact weights in uniform packagings.
- Some other factors to consider are the grower's source of income and if there is a large accumulation of unaccountable wealth. A commercial operation is a business, and it looks like a business.

Indoor Gardening: From Homespun to High Tech

by Ed Rosenthal

Indoor marijuana growing has been popular since the '60s. The first indoor gardening book I ever saw was a $3\frac{1}{2}'' \times 5\frac{1}{2}''$ pamphlet, published in 1968. The author claimed to be a Vietnam veteran who'd come back to the states crazed and regained his sanity with the help of marijuana. He theorized that for the plant to grow well, outdoor conditions have to be duplicated. The system the Vet recommended was extreme: Take a room and fill it 15"-18" with rich topsoil. (If you try this, make sure to take care of drainage and to protect the floor.) He used fluorescents and incandescents for lighting and suggested using Mexican or Colombian seed. He said the plant had to grow to 6 feet to really be potent. In only 7 to 9 months the crop was ready.

Since that time marijuana growing has gone through several

revolutions. Lighting, air, CO₂, growing systems, controls, and growing techniques have all changed dramatically. Here's a look at the past and present:

LIGHTS

Early growers had access to fluorescents and often special ordered VHO fluorescents to brighten up their garden. Then Murphy Stevens wrote his pioneering book *Indoor Marijuana Cultivation*, which discussed metal halides at length, and the indoor garden scene became a brighter place to work. Since then, growers have turned to high pressure sodium lamps and light movers to provide even lighting. Many kinds of reflectors have been devised to distribute light, whether the lamp hangs vertically or horizontally.

AIR

Pioneer gardens frequently had no

ventilation or air movement. The most the plants could look forward to was an open curtain or door. Today, internal fans generate a constant flow of air. Ventilation fans help regulate humidity and temperature. Evaporative coolers and air conditioners can also be used for environmental control.

CARBON DIOXIDE (CO₂)

Most old systems were not ventilated and had no CO₂ enrichment. Plants require CO₂ for photosynthesis. When it is used up they stop growing. Air, enriched with large quantities of CO₂, increases the rate of photosynthesis. For this purpose, modern gardens use CO₂ generators (which burn natural gas and emit CO₂), CO₂ tanks with regulators, chemicals (see "Ask Ed" this issue), or organic methods (see "Brewing CO₂", HIGH TIMES, Sept. '87).

continued on page 46

by Dr. Indoors

I still remember those first plants. They grew in bathroom cups on my window sill with a fluorescent light over them. I was in prep school, and the plants were my biology project. It was 1967 and *Newsweek* had just done a story on marijuana. According to the article, cannabis was a Mafia-run business and the mob x-rayed the seeds to insure they wouldn't grow. Everyone at school threw away their seeds. Everyone except me. Nobody can x-ray all seeds, not even the Mafia. I collected 100 seeds and planted them. Ninety-five out of 100 came up. I was hooked.

I used potting soil, miracle grow, and my fluorescent lights for a couple gardens. The results were passable but I expected more. This was the start of the endless garden and the search for a better way of gardening. There were no books on growing cannabis so I experimented.

The buckets came first: plastic wastepaper pails. Wormcastings replaced the potting soil. Eventually, these became five gallon plastic paint cans with structured soil medium: gravel on the bottom, perlite, vermiculite, potting soil, composted manure and worm castings in the middle, with worm castings on the top three inches. Something was still missing. That's when hydroponics entered the picture.

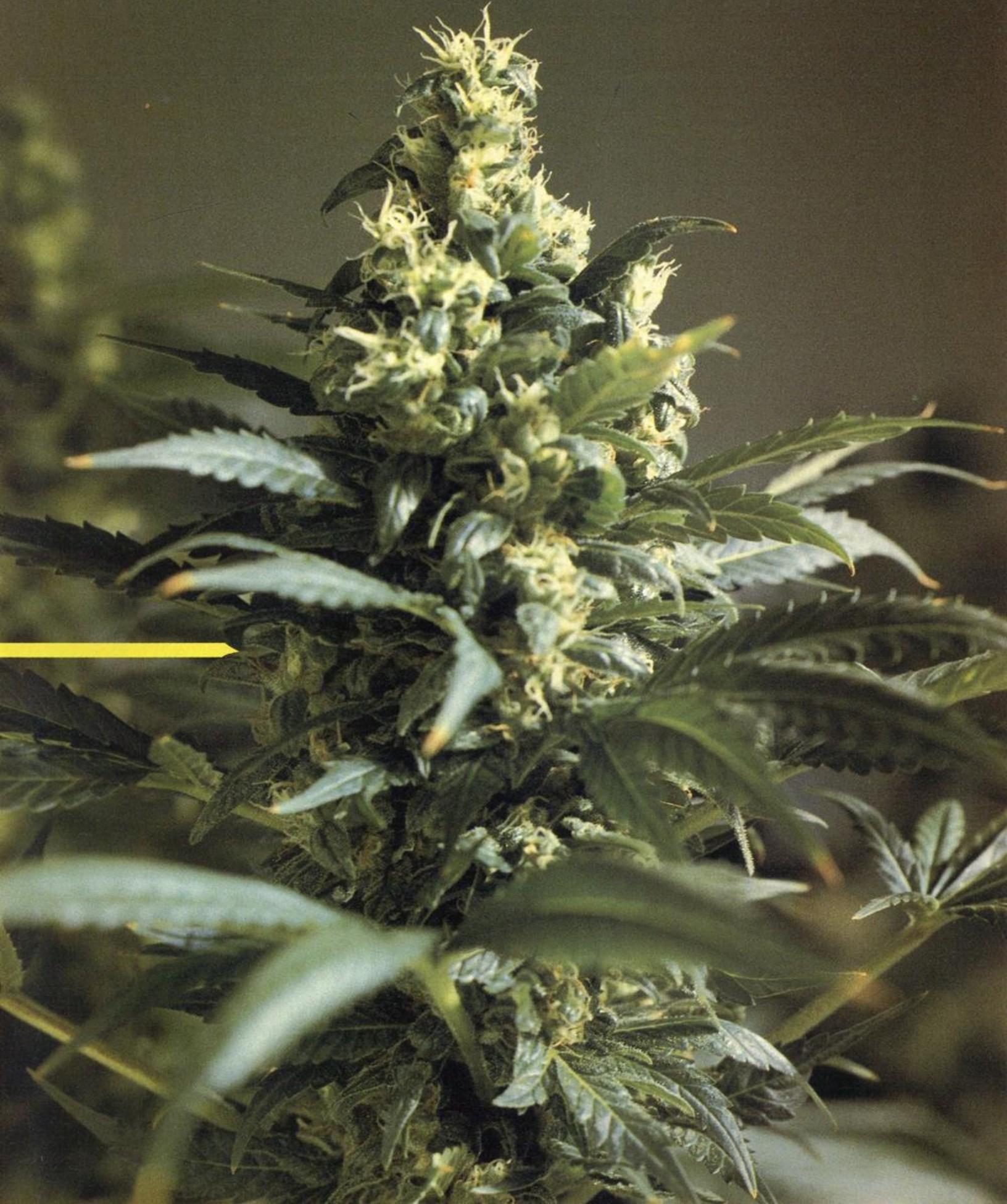
After researching hydroponics with my partner, sub-irrigation became the final solution. The buckets changed to $3\frac{1}{2}$ gallon units with $\frac{3}{8}$ " feed lines. After a few gardens these were replaced with new units of $3\frac{1}{2}$ gallon caulinader inners set in the $3\frac{1}{2}$ gallon bases with $\frac{1}{2}$ " feed lines. A modified version of this system exists today.

Feeding the plants progressed from hand watering to automated feed cycles. The automated feed

was primitive at first with timers controlling pumps: turning on to feed and shutting off at fill level. This changed into mechanical floats which individually controlled the fill and drain cycles. Today's models use pressure sensor units to feel the nutrient level. There are no moving parts.

The light was the biggest change of all. Fluorescents were fine at first, moving from standard to high output, to very high output, and finally to twisted bulbs. The spectrum ranges were changed. Then came halides. Metal halide bulbs are the closest substitute to real sunlight. One bulb can turn a 10' x 10' room into a tropical environment. Halides have gone from simple 1000 watt to 1000 watt super bulbs with phosphor coats that raise the red/orange range and have almost as much output as 1,500 watt bulbs. Today's halides are horizontal rather than vertical and

continued on page 46



REGULATION

The only regulation old-time gardens had was a simple timer to shut the lights and fan on and off. However, we now know that for top efficiency the devices in a grow room should be regulated by an interactive controller. Some modern units, designed to control the lights, fans, ventilation, CO₂ and humidity, are completely automatic or computer-driven. Besides the lights and irrigation, a device like this can control a ventilation cycle in response to a thermostat or sensor. When the room is ventilated, the controller simultaneously turns off the CO₂. When the ventilation stops, CO₂ is automatically injected into the room.

GROWING UNITS

Early gardeners had to make their own growing units. There were no suppliers of specialized equipment, so they relied on what could be gotten at nurseries and plant stores.

Today, sophisticated hydroponic units are for sale at fairly reasonable prices, so the hobbyist gardener doesn't have to tinker. In addition, new materials such as rockwool, floral foam and urethane foam make it easier to set up units. The popularity of drip irrigation has made it possible to obtain most of this equipment locally in many areas.

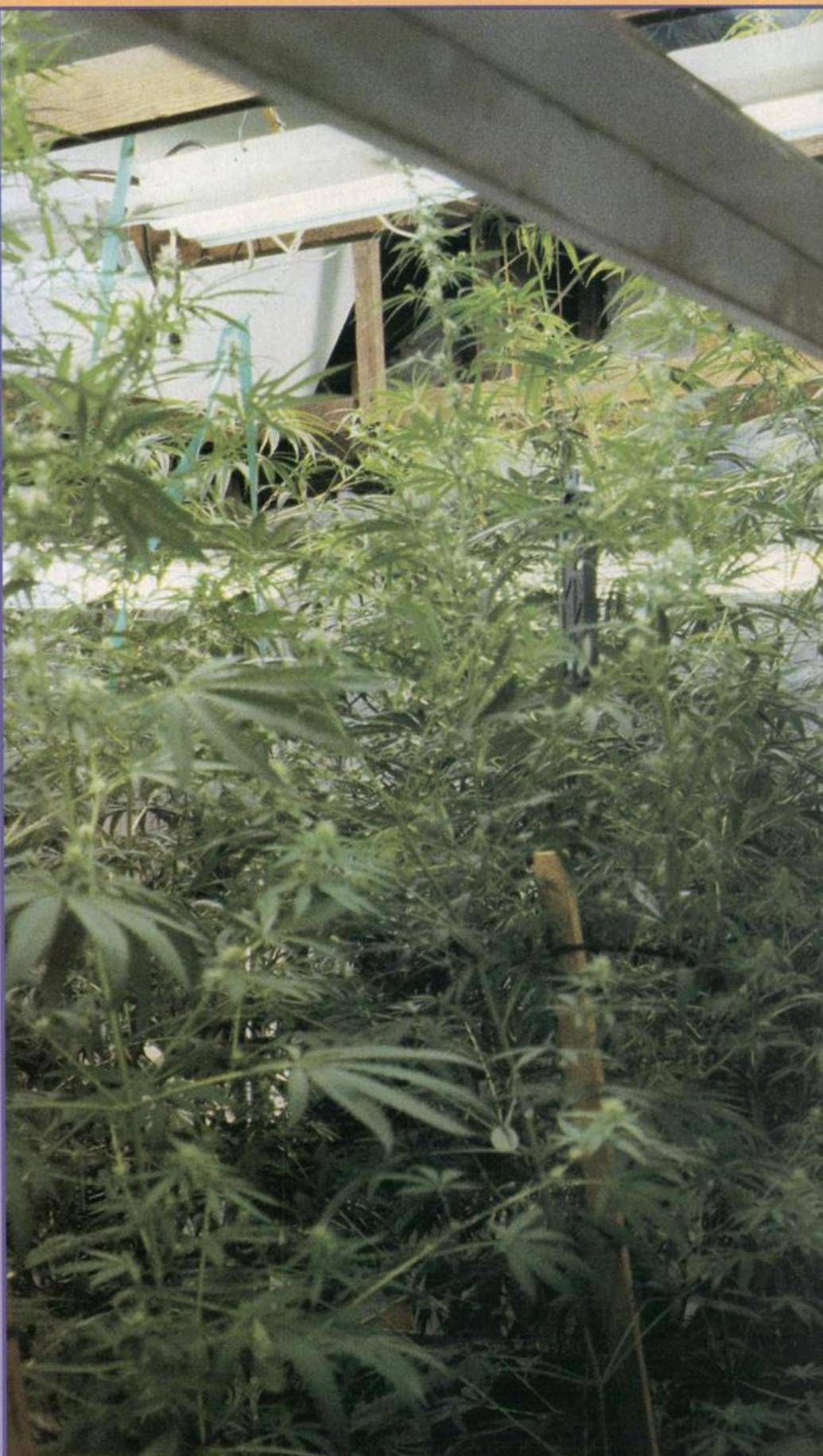
FERTILIZERS

The growers of old had to rely on whatever fertilizers were sold at local plant stores or nurseries. Nowadays fertilizers with many different formulas are available. Most of them supply trace elements so that the plants will have adequate amounts of all necessary nutrients.

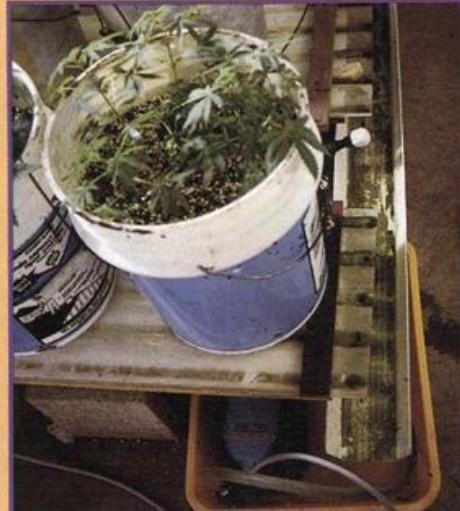
TECHNIQUE

Pioneer cultivators had to rely on trial and error, rumors and anecdotal data in order to get gardens going. There were few books on growing and many of them contained misinformation. In contrast, present-day growers have access to many books and a constant flow of magazine articles on the subject. A few dollars spent on information can profit a grower many times over.

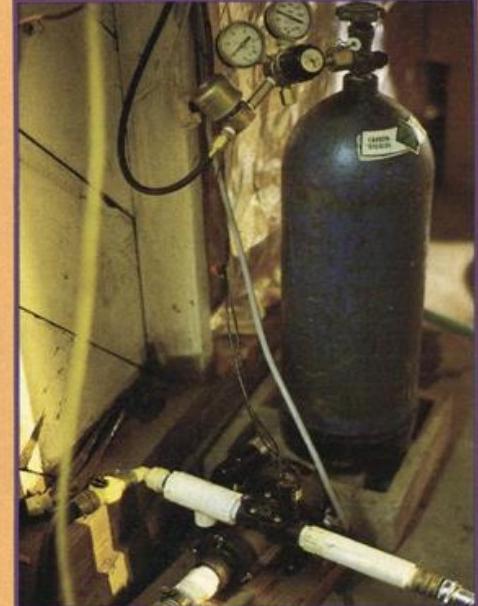
continued on page 59



In 1980 a grower converted a garage to a grow room. He used fluorescent lights, and 15 gallon buckets filled with topsoil. As an experiment, he used a few 5 gallon hydroponic units with catch basins. He grew an Afghani 1 x Burban hybrid.



The next crop he converted over to an automatic hydroponic system which he constructed. Reservoirs were placed on shelves above the plants. The watering system was on drip and timer and flowed down to the plants using gravity. The containers were placed on corrugated plastic placed over a wooden frame. Water flowed out the containers on-



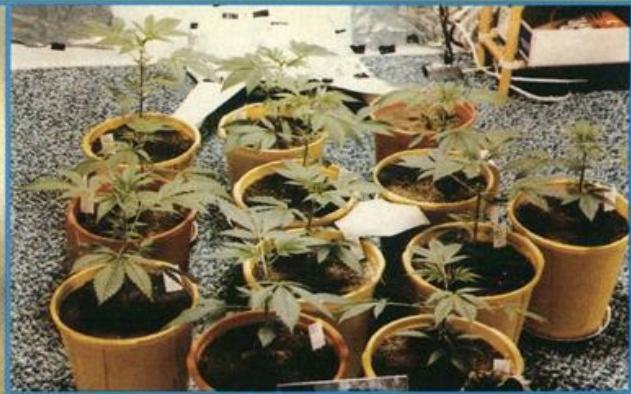
to the plastic into a trough made from rain guards and into a plastic wash bucket. A sump pump pumped the water back to the reservoir. At the same time he introduced a CO₂ enrichment program into his garden.

An attic garden from the early '80s. Plants are in individual 2 quart containers, each with a catch basin which was filled to two inches. The mix included vermiculite, perlite, styrene, compost, steer manure, blood meal and cottonseed meal. This was supplemented during the growing season with hydroponic fertilizers as the plants needed nutrients. A light shuttle carried the 1000-watt MH a distance of 6'. Roundtrip took about 45 minutes.





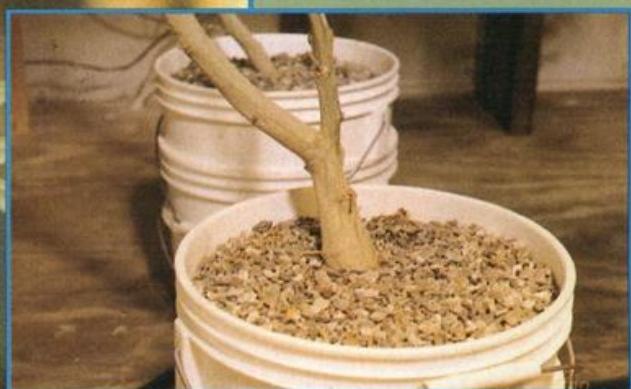
Flower main stalk/Bud in worm casting garden.



Worm casting buckets with Afghani Snobuds.



Hydro plants in first dual buckets.



Close-up of first dual bucket setup.

Dr. Indoors *continued from page 44*

produce 42% to 72% more light than the vertical bulbs.

To make the best use of all this light, a trellis had to be designed, one which was easily adjustable, held the plants in the arc of the light, and allowed for easy access to the flowers.

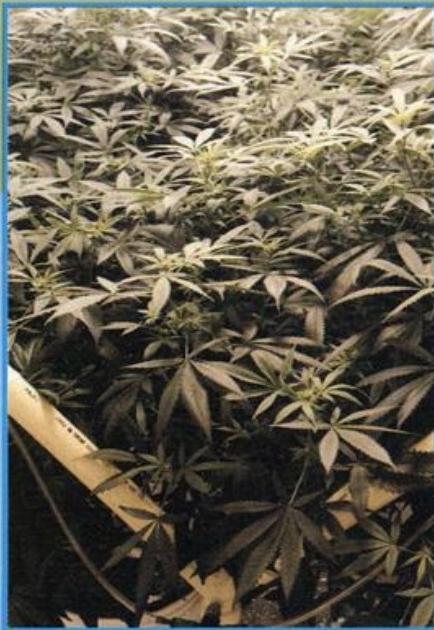
All these factors have made a significant change in the way cannabis is grown. With the advent of the hydroponic garden and halide lights, the trellis system has been replaced by the "plantlet method": exact genetic duplicates of the best



Snobud NYB in trellis starting to flower.



plant, flowered to become a sea of buds, producing harvests that boggle the mind. Cloning has allowed for perpetual gardens and seed stock of identical genetic makeup. Cloning itself has gone from the old style of large pieces of plants made to root, to mini-clones in floatation or rockwool cubes soaked in rooting hormones. Today cloning has entered the single cell stage, allowing for millions of identical clones. Over the years the garden has evolved from a Model T to a Starship Enterprise. It's been an exciting 20 years and I look forward to the next 20. ●



Snobud in trellis in Dr. Indoors' current dual bucket system.



Dual buckets without inner buckets set in place. Current set up with trellis.

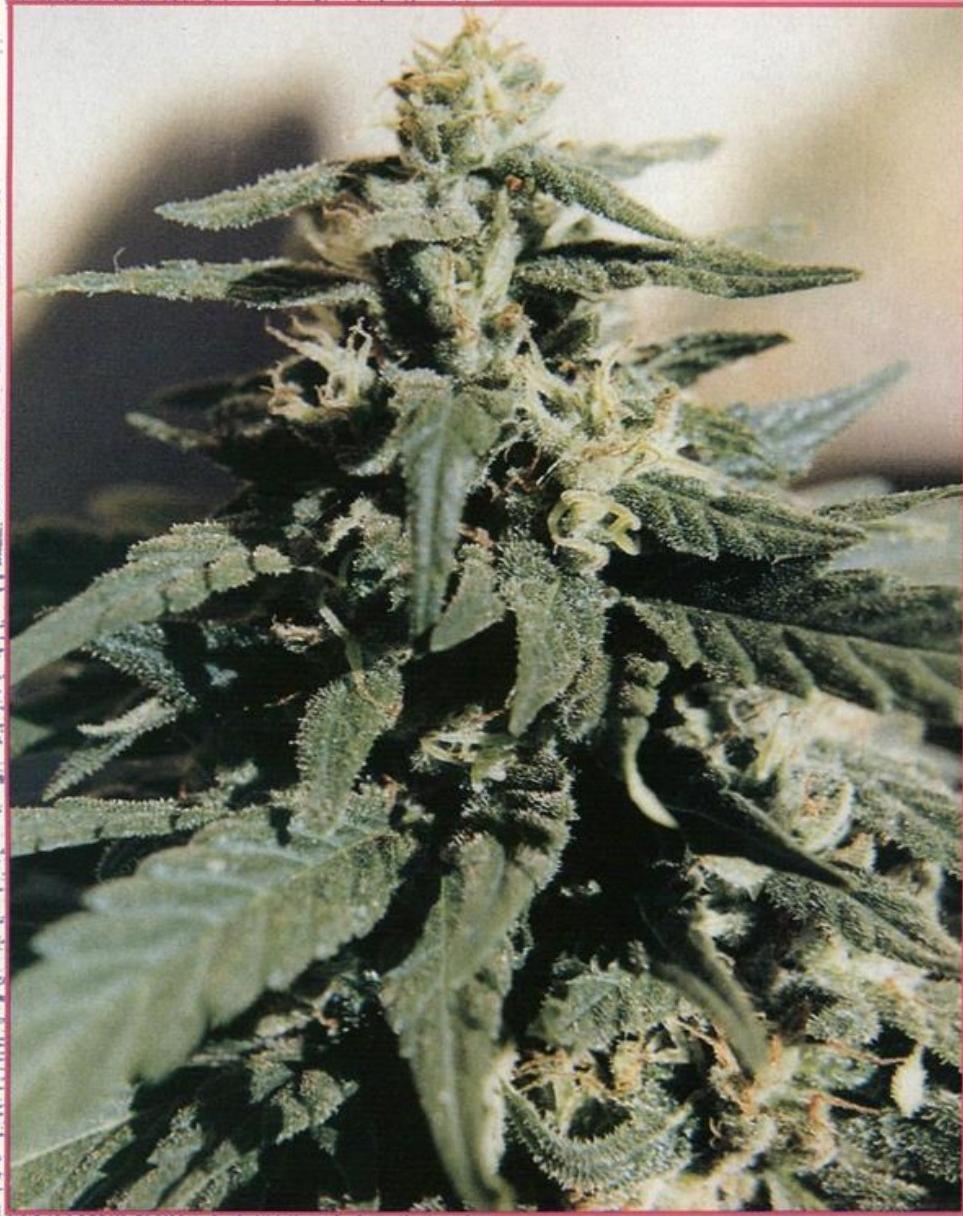
HIGH TIMES

salutes the indoor grower!

Northern Lights 5 x Skunk #1
grown by Ace.





**BUD OF THE MONTH**

Here is a picture of my pride and joy, a Skunk/Khyber/Afghani hybrid just about ready for harvesting. Bud samples have proven this plant to be a killer—kick-ass weed of the two-toke variety! Because of the seemingly never-ending drought conditions here, I thought I'd try my hand at home gardening.

Out of the 20 originally planted, only this one survived. I ran into the entire gamut of mistakes and pitfalls, such as overfertilizing, excessive fondling, etc. Sincerely,

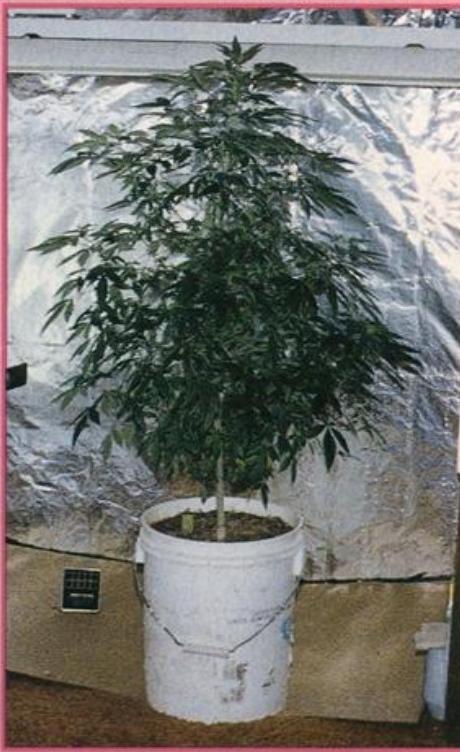
—Buds McKenzie
Tamarack, California

BY ED ROSENTHAL

ASK ED

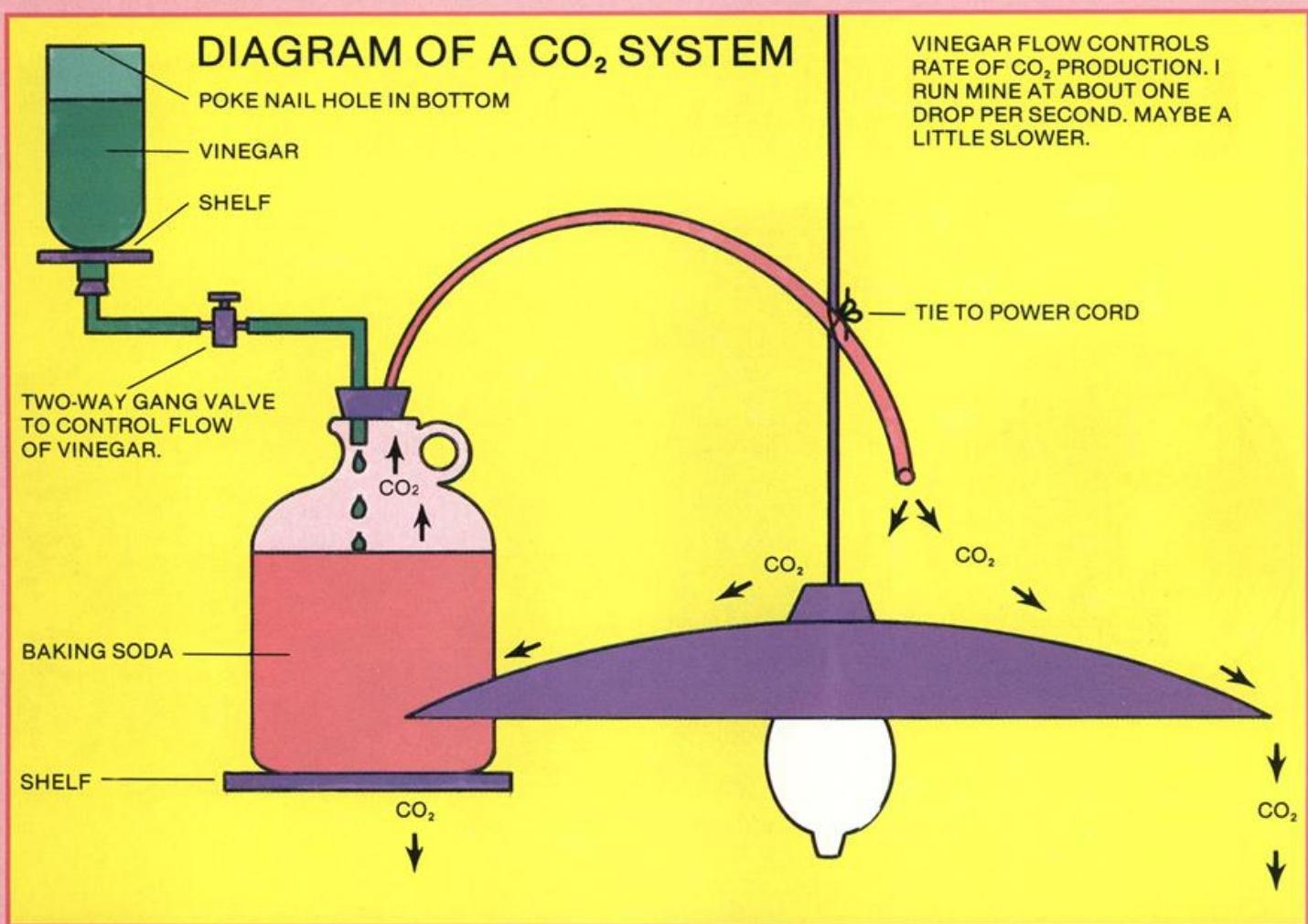
GARDEN OF THE MONTH

—Indigo Sam
Bunkum, Kentucky

PLANT OF THE MONTH

This is my first time growing. My grow room measures $2' \times 4' \times 5'$ high. I am using one 48" two-tube fluorescent light and two 24" fluorescents on the side walls. The plant is 7 months old and is beginning to flower since I have put it on a 12 hour on, 12 hour off light-cycle.

—Michael
Stanislaus County, California



BRIAN SPAETH

High Ed,

I want to tell you about the way I give my plants CO₂. I make wine and in the winter put the fermenter in my small 8' x 9' x 8' high grow room. As you have written, yeast eats sugar and vacates CO₂. This process takes up a lot of valuable space so I use it only to utilize the heat of the grow room.

Other times I use a much cheaper, space-saving method to give my plants CO₂. It's manually controlled and I don't have a meter to tell me how much gas is being produced. I just go by what my plants tell me. It works for me and my ladies. I'm sure it will work for others.

Dear Ed,

My seeds won't crack. I've tried several methods to no avail. At most I get 20%. The seeds are fresh. All have white interior and are fully matured. How do I get them to go?

—K

Ninole, Hawaii

Try sawing a crack into the shell with a single-edged razor or another cutting tool.

Dear Ed,

I have several questions, so here I go. Will a gas water-heater vented into a grow room help raise the CO₂ level

I think a diagram could explain it better with less confusion than any words I could write. So here's a list of materials:

- 1 large box of baking soda
- 1 gallon distilled white vinegar
- 1 empty clean glass cider jug
- 10-12 feet of tubing
- 2 rubber stoppers: one with two holes that will fit the cider jug, one with one hole that will fit the vinegar bottle.
- Three 3-inch pieces of glass tubing that will fit inside the stoppers and the air line tubing.
- 1 two-way aquarium gang valve
- 2 shelves, each about 12" square, one with a hole cut in it so that it will hold the

enough for vegetative growth?

Can I feed the plants when the lights are on or will it burn them?

I know that a white or reflective surface is best for most everything but what about painting containers flat black to absorb the light and raise soil temperature?

Thanks,

—Ruderalis Growdog
Los Angeles, California

Although a gas-water heater does emit a bit of CO₂, it also emits dangerous vapors that could cause death. It is better to invest in a safe, reliable CO₂ system.

A dilute fertilizer solution can be

VINEGAR FLOW CONTROLS RATE OF CO₂ PRODUCTION. I RUN MINE AT ABOUT ONE DROP PER SECOND. MAYBE A LITTLE SLOWER.

vinegar bottle upside down.

The vinegar flow, regulated by the two-way gang valve, controls the rate of CO₂ production. I run mine in my single lamp 1000 watt system.

—The Mangy Mutt
Salem, Oregon

Thanks for the tip, Mangy. To find out just how much CO₂ your unit is producing, take a gallon jug and fill it with water. Then turn it upside down in a bowl of water so that the jug remains filled. Run the tube from the CO₂ unit into the jug. As the CO₂ is produced it will displace the water.

sprayed on the leaves when the lights are on. Make sure the water is room temperature. Hot or cold water can damage the leaves.

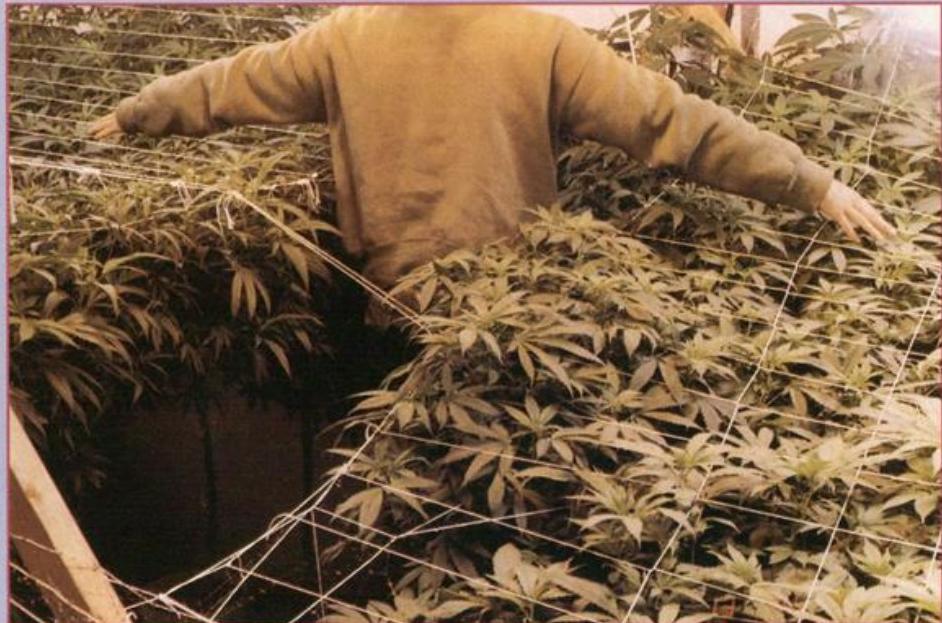
Rather than paint the pots and losing light, I would take other measures to keep the roots warm. Remember it is much more costly to generate light than to generate heat. Presumably the floor of the grow room is not too cold. A cold surface draws heat from the containers. Cold floors can slow down growth considerably.

If the floors are cold, they should be covered with styrofoam or wood over insulating material. Newspaper also

continued on page 57

BY BRAM

Dr. Indoors



Yes, a trellis can increase your yield.



Sativa bud suspended on trellis.



This flower is only one week old.

Dear Dr. Indoors,

My hydroponic system waters my plants all day and all night. Will this throw the plants' metabolism off? If a clone is in its fourth generation will it start to lose its potency as the generations go on?

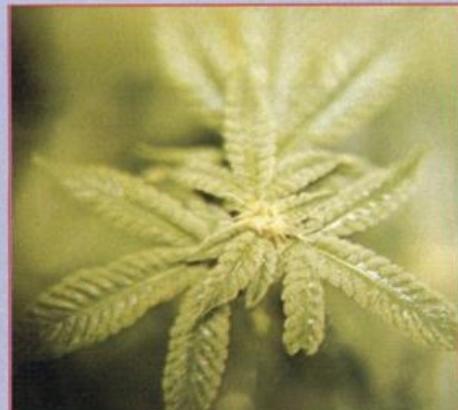
My biggest problem is that when I flower, my plants get a foliage fungus. I have tried everything: dropped the humidity, used a fan, added CO₂ and I even have fresh air going into the room. What can I do?

Thanks,
—LAB-Man

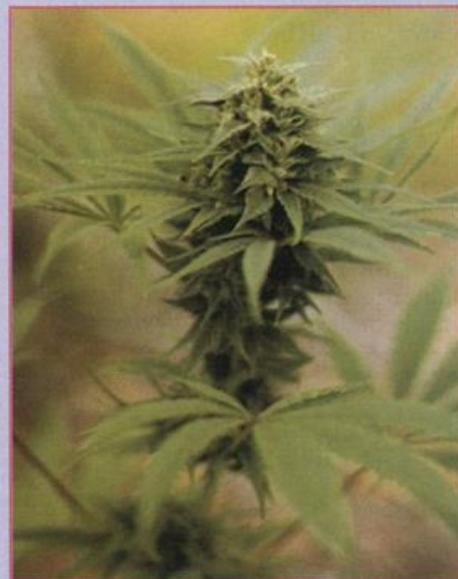
Plants don't need to be watered at night, since they draw water only when they're actively growing. Your system is putting moisture into the surrounding area at night and not into the plants. This extra moisture contributes to the mold growing on your flowers. Flowers form a non-water sol-

uble resin, which, as the calyxes grow close to each other, form sealed pockets. Moisture is trapped in these pockets and, along with the warmth from the plant, they make a perfect area for mold to grow. The circulating fan is a good idea. Any fresh air in the room should be filtered to trap mold spores. A bio-air filter will do the job. It can trap mold spores several microns in size. Don't let the room temperature drop at night. This allows the moisture in the air to condense on the surface of the plant.

Clones don't lose their potency as the generations go on. If you suffer a loss of potency it is not due to the plant. It can only be how you grew it. The clone is an exact genetic duplicate of the mother plants. Make lots of clones so if there's an accidental mutation you still have the original gene structure intact.



Hash plant worked fine in your mini-garden! It had lots of resin & sweet taste.



This Afghan #1 grew indoors, better than outdoors!

Dear Dr. Indoors,

Using half perlite, half vermiculite as a medium in three-gallon containers, how many times a day should I water clones? There are five clones to a container and each is six inches tall. How many times a week should I feed them nutrients? How tall should I let the plants get? When the clones get a foot tall should I do something different? Which hormone will give me the best rooting?

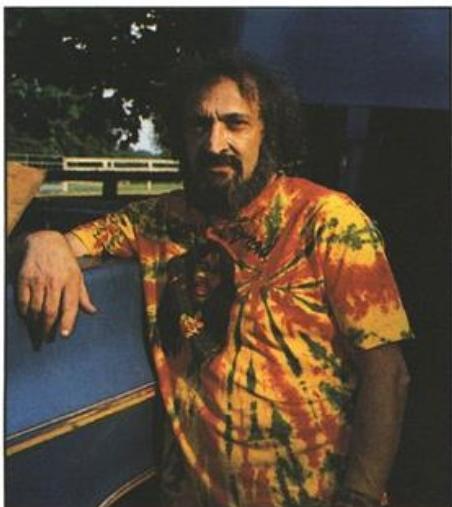
—Clonehead

Vermiculite and perlite can hold water and lead to root-rot since moisture limits the amount of oxygen the roots can receive. You should add something to the medium to balance it out—pea gravel, non-absorbing plastic chips, closed cell foam, or something similar. How many times you water the plants depends on how dry the

continued on page 60

continued from page 22

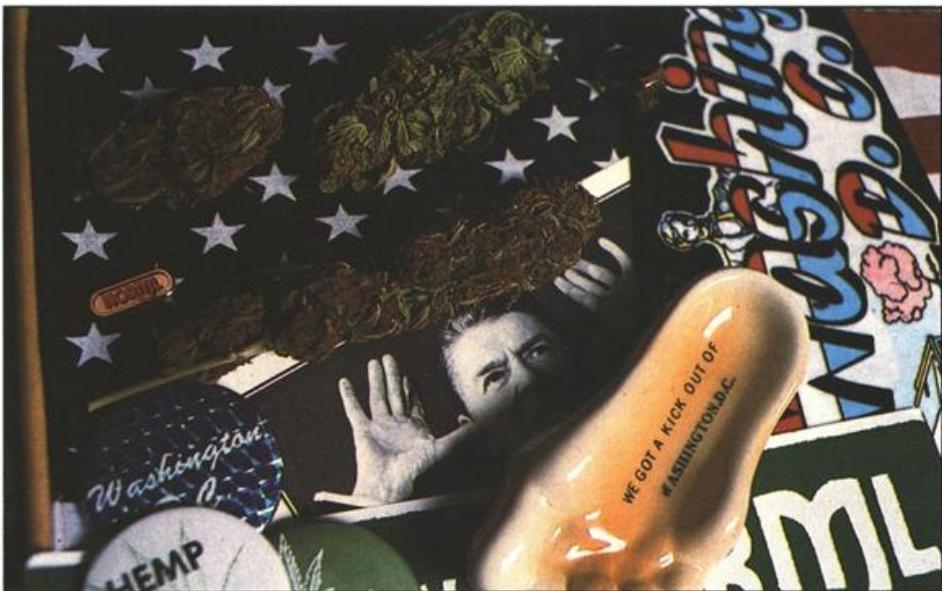
JOHN EDER



Jack Herer, author of The Emperor Wears No Clothes.

Although these legal seminars have become a major source for money, there is some debate as to how much they've accomplished for the reform movement. In exchange for an entrance fee of several hundred dollars, attendees receive current tips on legal loopholes. Sajo has attended several of these seminars and feels many of the lawyers have

JOHN EDER



These buds won the top prize during backroom consultations. That's Lone Star Lights on top (Northern Lights) and Skunk #1 down below, both grown in Texas hill country.

little interest in seeing any real reform of the drug laws.

"We had a serious re-evaluation of NORML at the board meeting," says Viets, who is also on the board of the Missouri chapter of the American Civil Liberties Union. "The consensus is that no one is happy with where NORML is today. My personal view is that NORML on-

ly exists to the extent that we penetrate the national press. If people don't hear or read our point-of-view expressed in the media, then there's no incentive to join. Although there are lawyers on the board, that doesn't mean they aren't also activists. Marvin Miller, for example, wears a pot leaf on his lapel every time he goes to court." ●

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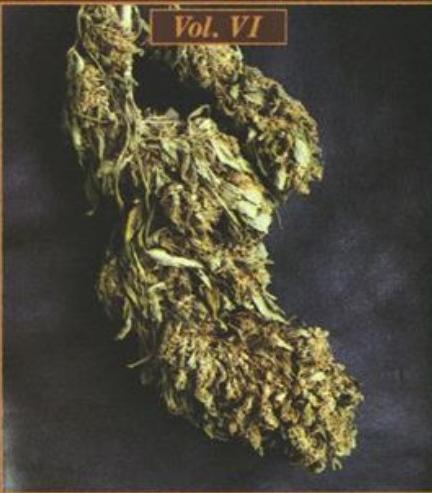
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ASK ED

continued from page 53

works well as insulator. Heating mats and heating cables are especially constructed to keep the roots warm. Raising the containers off the floor could also be a solution. Pallets and many hydroponic systems raise the plants off the floor.

Dear Ed,

Last June I took cuttings from my female plants and when I flowered these cuttings they all turned hermaphrodite. I planted the seeds these plants produced and ended up with all female plants with no male flowers on them.

In the Feb. '87 issue of *HIGH TIMES*, pg. 73, you stated the seeds from a hermaphrodite plant will contain genes for hermaphroditism. How did I end up with all females?

—A Curious Believer

Mather, Pennsylvania

Naturally occurring hermaphrodites contain genes for hermaphroditism. Southeast Asian females usually have some male flowers as well as male plants. Some hemp varieties are all two-sexed plants. These plants' offspring will act just like them. The male flowers your clones produced were grown as a result of stress and do not ordinarily grow on the plant. Although the flowers were male, none of the pollen contained genetic material which would induce the plant to produce male flowers under unstressful conditions. The resulting seeds thus contained information to flower only as females.

Dear Ed,

I have developed a terrific new home-made plant spray. Here's the recipe:

1 quart herbal tea with apple essence (make sure it contains no caffeine)
5 drops dish detergent
4 drops Listerine
4 drops ammonia (plain, not scented or sudsy)

Apply to plants in a fine mist spray at between room and body temperature. It kills bugs, helps prevent their return, and it perks the plants right up.

—Heads up North, Very Small Town
British Columbia, Canada

Dear Ed,

I've heard numerous people claim that they left bare stalks in the ground after harvest and that they rejuvenated the following spring. Is this possible?

—S.D.S.

Pensacola, Florida

Yes. The plant is usually killed by freezing or prolonged cold weather. In

Florida, where it never freezes, the plant could start to grow again after the buds were harvested.

Dear Ed,

I recently tried an experiment. I took two buds off the same plant and dried one out by placing it in the window. The other bud was placed in a film container and submerged in liquid nitrogen for around a minute. When I took it out the bud was like glass and I shattered the bud on a tray and let it dry.

The bud that was dipped in liquid nitrogen seemed to have a better taste and higher potency than the sun dried bud. I repeated the experiment several times with the same results. Friends who tested the two agreed.

—Jack Frost
Soldiers Grove, Wisconsin

Thanks for the tip, J.F.

Dear Ed,

Is peat moss a good medium to grow in?

—Heart of America Homegrown
Manhattan, Kansas

Peat moss has many interesting characteristics as a component of a planting medium. Although it acidifies the medium, this can be corrected using lime or other pH ups. On the other hand, peat is an incredible buffer. It holds nutrients until they are ready to be used by the plant. By holding the nutrients it prevents overfertilization. This is why many professional mixes and florist bought plants have a lot of peat in them.

Peat is most commonly used as a part of a mix, but some gardeners use it as a medium by itself.

Dear Ed,

Last year I let my plants go a little too long and they turned from crystalline to mealy. I don't want this to happen again. When should I harvest?

—J.C. Sonoma Coma
North Bay, California

Using a photographer's loop, which is a convenient magnifying glass available in photography shops, look at the crystals. Notice that while the plants are maturing the overwhelming majority of the crystals are clear. They may not be quite extended or full. First they should fill up, then they start to turn amber. They are then ready to be picked.

Dear Ed,

I found a way to regulate the flow of CO₂ coming out of the sugar-yeast brew.

Use a cheap aquarium air pump with valve and tubing, a 33-gallon trash can, plastic trash can liner and a timer. Run

tubing from the brew's airlock into the tightly sealed plastic bag in the loosely covered trash can. Set the timer-controlled pump in the bottom of the bag and run the output tube so that it ends near a circulation fan in the garden. The bag will expand and contract as the CO₂ is generated and used.

Peace and Power,
—Rambo
Harrisburg, Pennsylvania

Dear Ed,

I have developed an economical and efficient system which promotes growth:

16 quarts potting soil (such as Hyponex Professional)
8 quarts of perlite
8 lbs. of earthworm castings
4 tablespoons of dolomite limestone
3 tablespoons of bonemeal
8 tablespoons kelp meal
3 tablespoons Osmocote 14-14-14 time-release fertilizer
3 tablespoons Moister Mizer (or other water retention product)

The limestone provides a rich supply of calcium and magnesium. The worm castings and kelp meal supply the much-needed trace elements. The Moister Mizer allows me to water much less often. The Osmocote supplies all the fertilizer needed during the vegetative stage. The phosphorus supplied by the bonemeal assures a good root system and stocky stems. When flowering is induced, I used Alaska Mor-Bloom.

I germinate the seeds in Park-Start Blocks. Using bottom heat from heat mats and fluorescent lighting, 100% germination takes place in 2-3 days. The plants are transplanted in 7-10 days.

In a 5' x 5' grow room using a 400 watt MH horizontal and fluorescent side-lighting, I have gotten yields of four pounds of bud every four months. The plants are Northern Lights II x Skunk/Afghan from the Seed Bank. I use one-gallon root pruning pots for the entire period. The plants reach 2.5-3.5' at maturity.

Sincerely,
—Hillbilly
Bluefield, West Virginia

Dear Ed,

I was wondering whether a quartz halogen lamp is good for growth. Is it as good as a metal halide (MH) or a high pressure sodium lamp (HPS)?

Thanks a lot.
—High George
Topeka, Kansas

No. Quartz halogen (Q-H) lamps do not have a much greater efficiency than regular incandescents, about 1/3 as efficient as high intensity discharge lamps (HIDL). It takes three times as much electricity to get the same amount of light from a Q-H as from an HIDL.

continued on page 74

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LETTERS

continued from page 14

"family" butchered a foxy film star, cut out her baby, and used her blood to write on the walls. I'm a quasi-occultist—but that's sick!

—Windowpane Wayne

Atlantis, Earth

NUB GRUNTS

Goddamn, Gerard Fleck really kicked some butt on his article ("Back to the Philippines", May '88). I used to be in the Navy (USS Hawkbill SSN666) and I remember what a pain those dickhead Nub grunts were at the gate. It's the only place in the world where they have any authority. I also snuck a present back with me and kept it in the freezer. I would have loved to fire up during a drill, but on a submarine the air is recirculated, so I would have been busted.

—Doobie

Marina Del Rey, California

KIDDY KILLING IN CARTHAGE

In your May '88 issue, Dean Latimer raises several matters in his article "The Crimes of the Ancient Mariners" which I would like to address. First, the

children's graveyard in Carthage was the result of sacrifices to Moloch, the abomination of the children of Ammon, NOT Ashtaroth, the goddess of love, the earth, and the morning and evening star. This is not a picky point to those who love children and are inclined toward paganism. Ashtaroth got a bad rap in the Middle Ages by having the church hierarchy assign her name to a mythical child-eating daemon in a non-existent pantheon of daemons from hell. Second, I wish to follow-up on Latimer's statement on tobacco being found in the tomb of Ramses II by Canadian scientists ten years ago. Where was this finding published? Finally, besides its use for rope, hemp has been used socially, medicinally, and religiously for at least 10,000 years.

—A.K.

Bryn Mawr, California

Latimer responds: "And what was Queen Astarte doing, pray, while her hubby Moloch was devouring all those children? She was probably touring the slums of Carthage and Sidon, exhorting those same children to Just Say No to subversive nectars and ambrosia. Plus la change... As for tobacco in Ramses' tummy, it was covered in *Science News*, June '78."

McMOLOCHE'S



CAPT. WHIZZO

continued on page 76

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DR. INDOORS

continued from page 55

medium gets. Use a moisture meter to determine the frequency of waterings and don't feed them in the dark period. A foot tall is enough for you to flower the plants.

Dear Dr. Indoors,

I'm trying to grow plants indoors. The seed won't root. It's been two weeks and nothing has happened. The seed is on a screen, in a dish of water, in the sun. What should I do?

Thanks

J.M.

MD. Seeds need a proper environment in order to grow. Place the seed in a grow cube of some type like Jiffy-7, Oasis, or rockwool. Soak the cube in a weak nutrient solution. Then put the seed into the top of the cube. Place the cube in a warm, moist area. In 2 to 10 days the seeds should sprout. The seedlings will grow up into the light and the roots will come through the cube.

Dear Dr. Indoors,

I read your article on perpetual growth and I have this to say. Anyone having the rooms or the space you describe would be extremely fortunate. If they had that much space they wouldn't need your perpetual-type growth system because they'd have so many plants and so much pot they couldn't possibly smoke it all.

When are you going to smarten up and see that the majority of growers are CLOSET growers with very limited space? They don't have a lot of room. So do something worthwhile and develop a perpetual system for closet growers.

—A Closet Grower

Massachusetts

In my story I told readers how to turn a small area into three mini-rooms, rooms that would keep them in plants, genetic matter and flowers at all times. The concept was applicable to any size area. As for your comment that most people use closet space for gardens: most people I know have extra rooms or an attic or basement space to use. As a matter of fact, I have to convince most people that a small area, say, a 10' x 10', is enough. They want larger spaces.

Send all questions and comments to Dr. Indoors, c/o HIGH TIMES, 211 E. 43rd St. New York, NY 10017. Photos would be appreciated and those wanting a personal reply should send a SASE with their letters. By submitting your photo(s) you grant permission to publisher to reprint the photo(s) in HIGH TIMES magazine as well as any other Trans-High Corporation publications. ●

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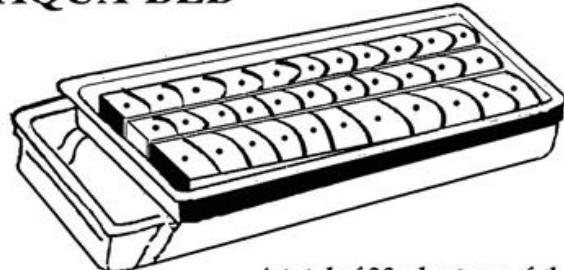


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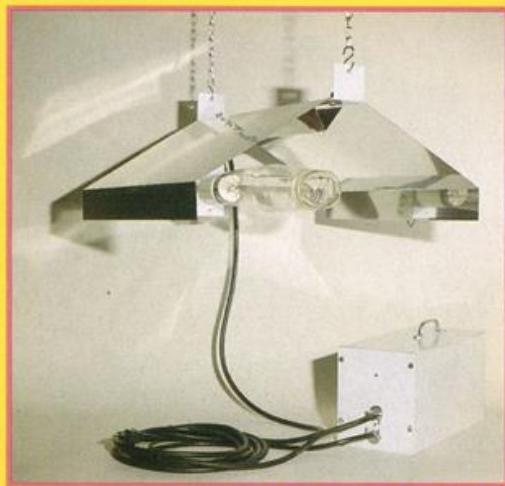
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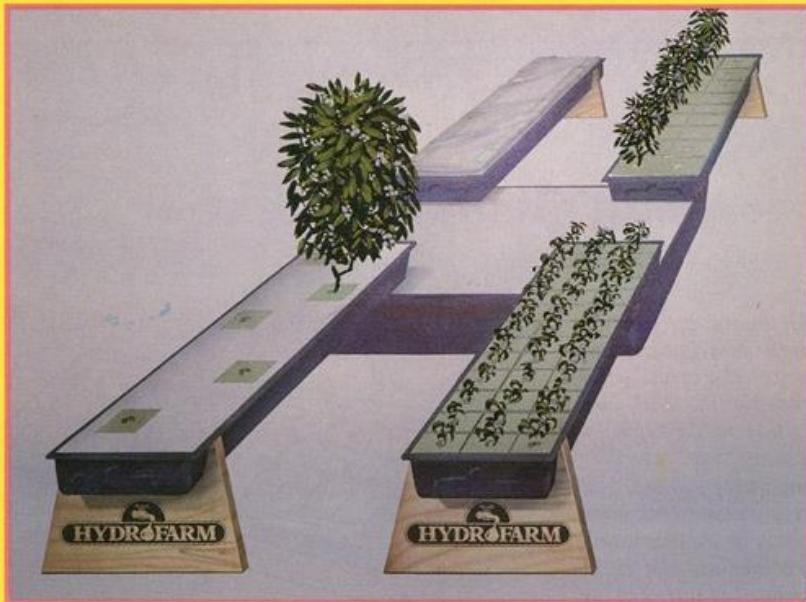
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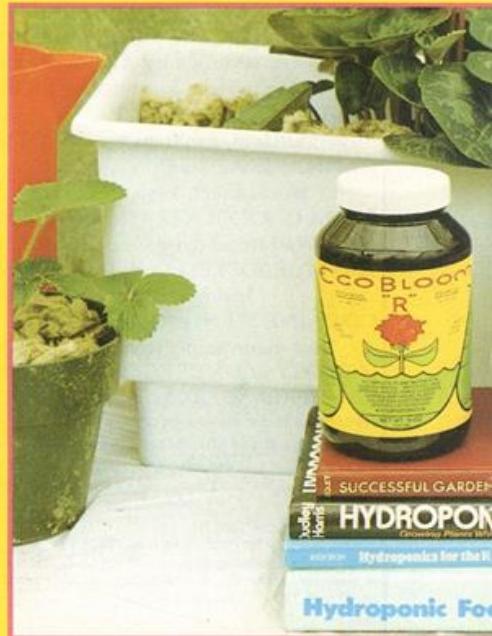
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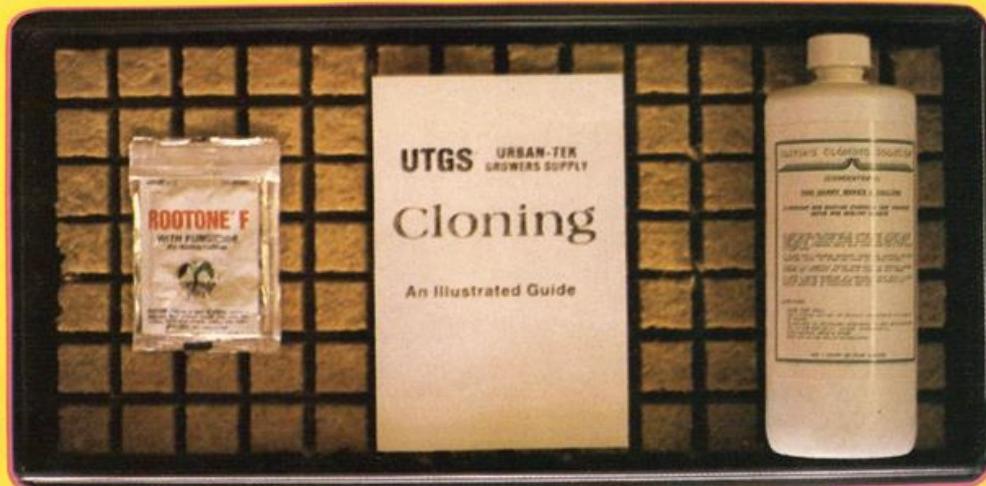


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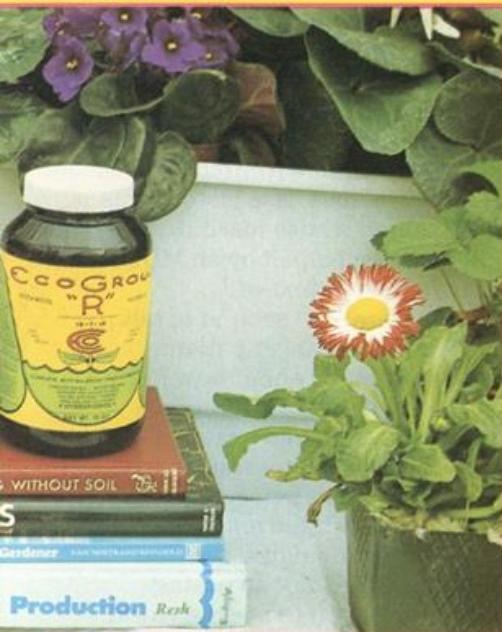
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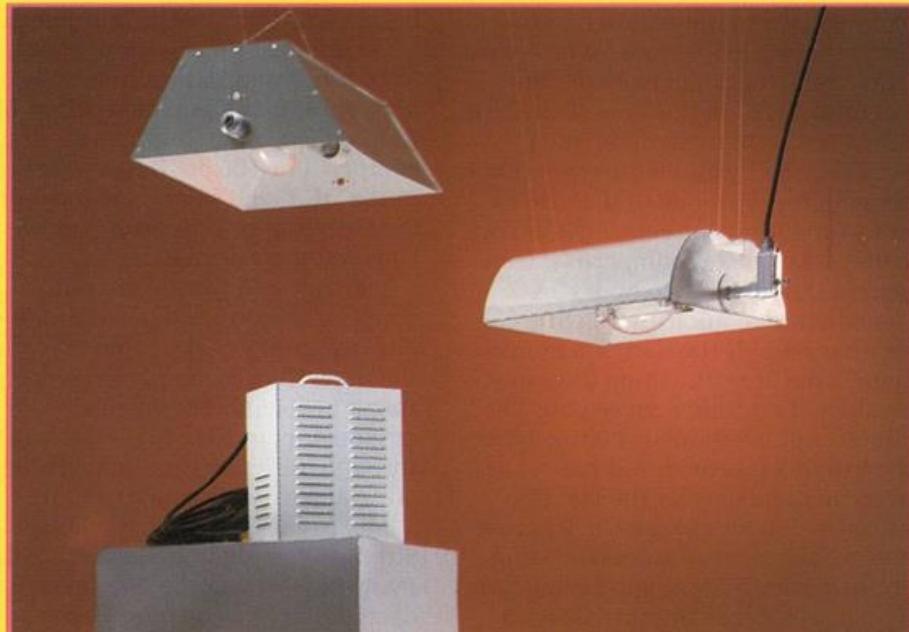


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Ecstasy: The MDMA Story (Part two of a three part series)



Excerpted from Chapter 1—"Introducing Adam"

MDMA Goes Public

Newsweek, in the April 15, 1985, issue, printed in its Life/Style section an article titled, "Getting High on Ecstasy." It began:

"This is the drug that LSD was supposed to be, coming 20 years too late to change the world. It is called MDMA—or 'Ecstasy'—and users say it has the incredible power to make people trust one another, to banish jealousy and to break down barriers that separate lover from lover, parent from child, therapist from patient. Yet unlike LSD, it does not also break down one's ability to distinguish between reality and fantasy, so that it appears free of many of that drug's unfortunate side effects. A New York writer who tried it compares it to 'a year of therapy in two hours.' A Benedictine monk from Big Sur, Brother Steindl-Rast, says 'a monk spends his life cultivating the same awakened attitude it gives you.' Of course, not everyone is taking it for the insights it provides. It has become popular over the last two years on college campuses, where it is considered an aphrodisiac. Drug-abuse clinics have begun seeing kids who take a dozen or more doses a day to achieve an amphetamine-like high. Apparently the nation is on the verge either of a tremendous breakthrough or a lot more kids too strung out to come in from the rain."

The next major media exposure for the suddenly publicized drug was on network television's "Phil Donahue" show, which turned out to be a rollicking free-for-all taped before a vocal New York audience.

The show began with Donahue poking fun at MDMA by first suggesting that the Iranians might

dump it in the water supply. Then, as Ayatollah Khomeini lands at the Washington airport, we welcome him with open arms—rendered open and loving by the new drug.

As Donahue sampled audience opinion, the immediate reaction was that it didn't like the idea of a new drug. Donahue then gave an appeal for the information to be heard, since much of the false information given in the drug scare of the late '60s had resulted in kids being told that heroin was the same as marijuana.

On the panel was Rick Ingrasci, M.D., who used MDMA in his Massachusetts medical practice; Mel Riddle of Straight, Inc., a drug abuse center; Gene Haslip, Deputy Director of the DEA; and Charles Schuster of the Drug Abuse Research Center, University of Chicago.

Ingrasci said that he did not consider the drug a panacea, and was not advocating that people take it all the time. He was simply suggesting that it be used in therapeutic circumstances to help people work through difficult emotional problems and improve their quality of life.

Mel Riddle spoke next, with a strong anti-drug line, suggesting that many kids who come to him have used the drug, and some were completely messed up after just one dose.

Gene Haslip was introduced by Donahue with a lecture on the problems that the hard-line policy of the Reagan administration toward drugs has created. Haslip replied with a statement that he wanted to get MDMA off the street and made a Schedule 1 drug.

Charles Schuster took what at first seemed a moderate position, suggesting that the drug be held out of Schedule 1 until research was

done with it, as is done with other drugs which are being tested for possible medical use.

However, this was followed by a rather sensational statement. Schuster announced that he and two other researchers from the Drug Abuse Center had found that MDA, the "parent compound" for MDMA, caused brain damage in rats, and therefore might also in humans (oddly, the research paper they published in *Science* stated their position in much more conservative language).

However, the tone of the program was changed by the articulate testimony of several patients of Rick Ingrasci, who spoke from the audience. The first case history was from a woman whose marital problems were helped by an MDMA session in the context of psychotherapy. The second to talk, Diane Watson, a cancer patient, spoke emotionally about how MDMA had helped her deal with the diagnosis that she had terminal cancer and only six months to live. MDMA, she said, was a catalyst to help her deal with the anger and the pain of her terminal disease. She stated, "MDMA is not an ecstasy drug. It allows you to see the world more clearly and to heal yourself. You realize that you don't need negative emotions, old emotions any more, and you can let them go."

There were many testimonials from the audience, pro and con. Advocates and "anties" were given time to make brief statements. Clearly, the statements by those helped by MDMA therapy made a deep impression on the studio audience, but still there were many who remained skeptical of the advent of another new drug.

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The floodgates had now opened, and a deluge of media copy and videotape spilled forth. An article appeared in the May issue of *Psychology Today* by Jack Shafer, a reporter writing a book about the increase of synthetic drugs appearing in the drug underground. His previous magazine publication, in the March 1985 issue of *Science '85*, "Designer Drugs," portrayed the dangers of synthetic heroin substitutes, such as alpha-methyl fentanyl, also known as China White. In his article "MDMA: Psychedelic Drug Faces Regulation," Shafer

attempted to present both sides of the controversy of another designer drug, the much safer MDMA.

On the lighter side, the comic strip Doonesbury's Uncle Duke hosted a conference entitled "Ecstasy: Whither the Future" at Baby Doc College.

Ron Siegel, Ph.D., a pharmacologist who researches psychoactive drugs at the UCLA School of Medicine under grants from the National Institute of Drug Abuse (NIDA), emerged as the major representative of the DEA's attack upon the safety and usefulness of

Adam. He was featured in *Psychology Today* as well as in subsequent articles in *Time*, *Life* and *New York*.

Rick Doblin, the 31-year-old co-founder of Earth Metabolic Design Laboratories, became the major pro-MDMA figure in the media, although he was subjected to heavy criticism by his more conservative colleagues in the organization because of differences in strategies of action.

Doblin first tried MDMA in 1985 and quickly became an activist for the substance. Wrote Joe Klein of *New York* magazine:

"Even before the Federal Government entered the picture, Rick Doblin sensed that MDMA would become a political issue. 'Compassion has political implications. Empathy has political implications,' he says. Doblin decided to contact various government agencies, to show good faith by telling them all about MDMA and asking guidance. He contacted Nancy Reagan's anti-drug group, the National Federation of Parents for Drug Free Youth. He contacted the Food and Drug Administration and the National Institute on Drug Abuse and the United Nations. He proposed cooperation. He proposed joint research into MDMA. He proposed to the United Nations that MDMA be used in a project called 'Shaping a Global Spirituality While Living in the Nuclear Age.'"

Currently Doblin is finishing a degree in Florida and working on a proposal to set up a pharmaceutical company—Orphan Pharmaceuticals Inc.—which would conduct animal, human, and clinical tests in an effort to establish the therapeutic efficacy of MDMA.

During the beginning of 1985, another development occurred. A laboratory in Texas, which first began operating in 1983, started producing unprecedentedly high amounts of MDMA. Ron Siegel, in the *Psychology Today* article, estimated that 30,000 doses of MDMA were being made each month. This laboratory was said to be producing a kilogram—8,000 doses—per day, or 240,000 doses per month. These were made into tablets and sold in brown bottles labeled "Sassyfras."

"Sassyfras" brand MDMA was being sold, according to the DEA, at parties in which "pyramid sales" were organized. Participants paid

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Adam's Rib: California's MDMA Church

From ganja-smoking rastas to peyote-chewing Indians, mind-altering substances have enhanced religious ceremonies, helped provide psychic healing, and been used to expand metaphysical horizons in a variety of cultures and subcultures. Not surprisingly, the *empathogen* MDMA—due to its ability to open people up to themselves and allow them to retain personal insights—has in northern California found itself to be one of the tools used by a state-recognized church organization of shamans and counselors. Because of formerly-legal Adam's new status, the therapeutic wonder-drug has had to go underground, and the Ecstasy-church members feel a need for some anonymity. Yet the church's founder, president, and one of its ministers exuded such earnest enthusiasm over MDMA's positive effects, that they consented to describe their group and its use of Adam.

The church's somewhat capricious inception, as the result of a Halloween party attended by some one hundred and fifty '60s-style revelers in 1977, hints at nothing more than ribald frivolity. But eleven years later, although the pews are far from overflowing, the church boasts 26 ordained minister/members and a couple of hundred friends of the organization; all devoted to the noble, albeit vague, goal of working for the "common good of the community". Most Church members tend to get involved in existing groups and activities rather than loudly proselytizing the coming of Adam—they prefer to keep publicity about their use of Ecstasy to a minimum.

As no Notre Dame-style cathedral or even fixed place of worship exists, the sacramental offering of Adam—which at times resembles psychoanalysis more than high mass—takes place at a location chosen by the individual ministers. A minister will usually take Adam with one other person—or occasionally a couple—who has come to the church for help with an emotional or

existential problem. When a minister has evaluated the case and feels the person is able to handle the substance and will reap real rewards from the experience, then arrangements are made for the ritual. No fixed ceremony actually precedes the trip—each MDMA session is tailored to the peculiarities of the individuals. The church emphasizes the importance of providing as close to an ideal setting as possible and requires its ministers to not only demonstrate counselling skills, but—since taking Adam is considered a spiritual and mental awakening—to have a properly reverent attitude towards the drug. The church frowns on recreational MDMA use. Some ministers feel that a tad of abuse goes on and view the employment of Ecstasy as a means of sexual seduction with loathing. The ideal scenario involving the administration of Adam would be one in which it was given as a means of solving a particular problem. Upon a completion of the trip, the individuals in question would be able to deal with whatever trouble they had, by themselves—without the church of MDMA.

Among the organization's therapeutic triumphs, the church claims to have cured a chronic asthma patient during one session with MDMA. But they admit that most people simply use the experience to find personal direction, or to put some aspect of their lives in order. In the administration of Adam, the church basically offers a guide and counselling service which helps others to take full advantage of MDMA's unique effects. The ministers feel that they have been successful in using Adam and, although it's more difficult to procure now than in the days when it was legal, will continue to provide Ecstasy-counselling as part of their church functions. "It's something that's worked for me," the church's founder states, "...and I just want to share this energy potential with others."

—Rob Hambrecht

HIGH ART



Minotaur at Bay by Bruce Conner, wood engraving collage, 1987.



Steve Leavitt (untitled).

High Art in Black-and-White

by Carlo McCormick

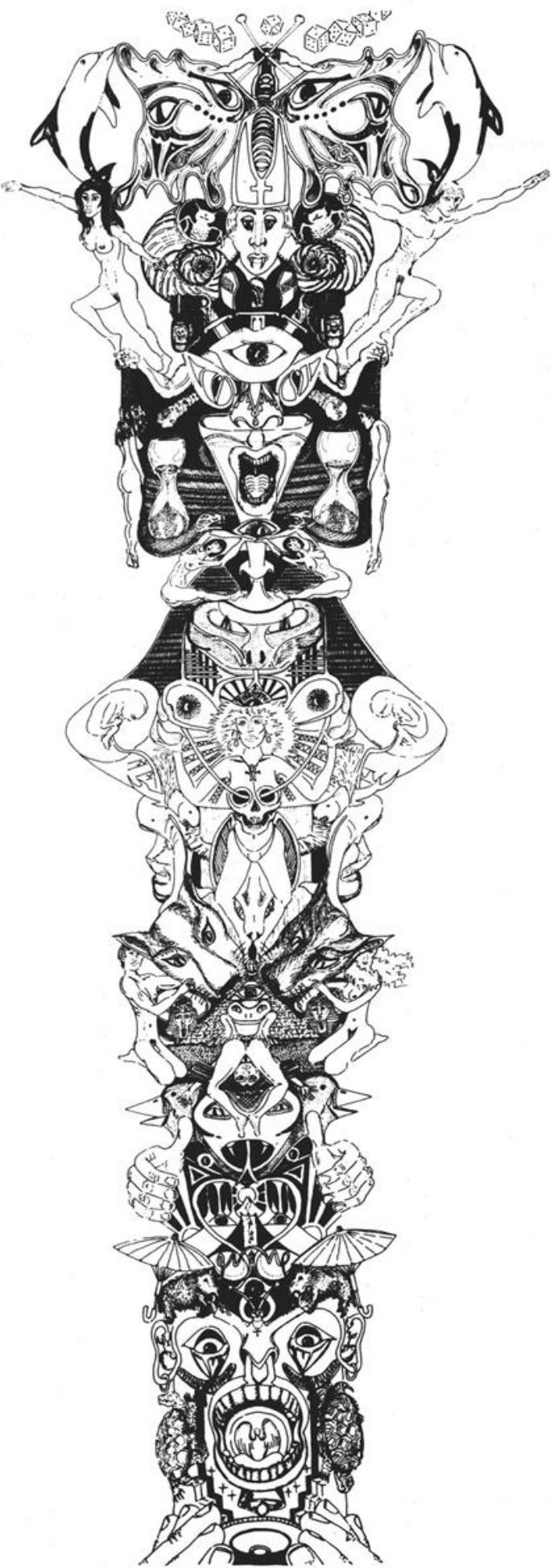
The function of High Art within HIGH TIMES is mostly to provide a couple of pages every month of outrageously intense art in living, breathing, mind-blowing color for you spaced-out pot-smoking degenerates to stare at when you're too stoned to do anything else. It was conceived as a color spread with psycho-active effects. It wasn't until recently, when we became aware of a number of excellent artists who work mostly or exclusively in black-and-white, that High Art was forced to reconsider the necessity of color in the psychedelic experience. Still, one wonders, can black-and-white art take you to the same places? And if not, just where is this hallucinatory colorless landscape on the aesthetic map?

The issue of black-and-white versus color is one that extends far beyond art into the very root nature of perception. Are colors sensory information received in viewing, or are they a language within our consciousness? Evidence indicates that we dream in black-and-white; that signs and symbols on a black-and-white

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Mooshroom by JaCaeber Kastor,
Pen & Ink, 6" x 7", 1975.



Section 37B (From The Endless Totem), JaCaeber Kastor, Pen & Ink, 6" x 22", 1988.



Kim Seltzer, wash, 7-1/2" x 10".



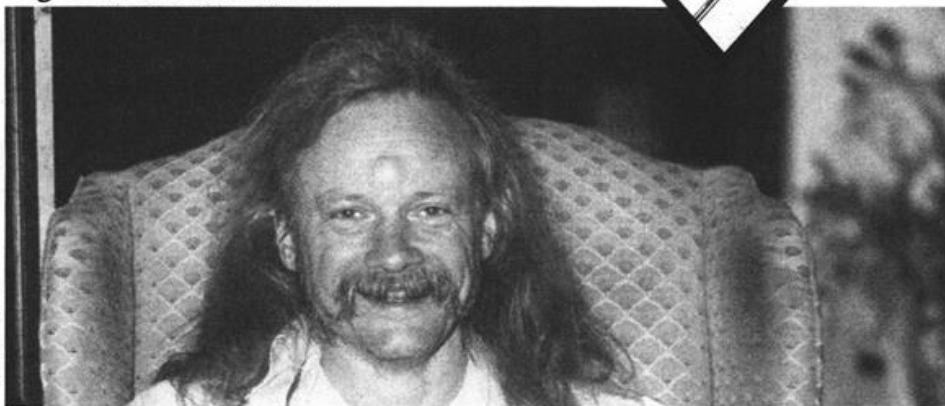
Kim Seltzer, pen and ink, 9" x 13".

Interview: Dana Beal Part 2

"Ibogaine can cure drug addiction."

by John Holmstrom

JOHN EDER



"It's not a substitute like methadone, it's like LSD."

Dana Beal, head of the Coalition for 100% Drug Reform, is very active in the Safe Drugs Movement. Last month, he discussed what the Safe Drugs Movement is, and why marijuana is the safest drug of all. This month, he details the potential of ibogaine to solve chemical drug addictions. (NOTE: see the July 1986 issue of HIGH TIMES for a more definitive article on ibogaine.)

HIGH TIMES: Could you sum up the objectives of the Safe Drugs Movement?

DANA BEAL: Our first demand is that all drug users be decriminalized.

Second, we want ibogaine to be made available. And third, they can't put more incentives in to do hard drugs instead of pot... Once you have decriminalized pot, you have to shift the market to the least harmful illicit drug.

I'll talk about the second stage of this a little bit more, the ibogaine. This is a derivative of a natural herb called iboga *taberanthi*, a small African bush tree. The bark and roots contain a powerful psychoactive drug known as ibogaine. It's like peyote. It's a very subtle drug, unlike cocaine and caffeine, which are endorphin blockers that prevent your natural body opiate, endorphin, from attaching to the sleep receptors so you don't feel sleepy. That's what happens when you drink a cup of coffee or do a line of coke. When you do too much coke it begins to stimulate the endorphin receptors in ways that not only block the endorphins but mimic some of the effects of the endorphins themselves, so you get a secondary high. When you've been doing coke for four days you get some of the characteristics of the heroin high, just as you get secondary effects

from doing alcohol. If you get really soured on alcohol, you get liver by-products that are like mescaline. Opiates are also like blockers, but they really mimic the effects of the endorphins. The body thinks it's getting endorphins, and it feels great. Delicious feeling. You're falling asleep. That's why they say "junkies are on the nod." They're falling asleep all the time.

What ibogaine does is a lot more subtle. Your body has natural ways of retuning your endorphin system. One of the ways it gets out of whack is when you get addicted to caffeine, cocaine, heroin, or nicotine. If you take a sufficiently powerful dose of ibogaine, the first thing you do is fall into a waking sleep for three hours in which your entire life and all those spooky archetypes that you see distantly in your dreams are projected on the back of your eyelids. It's like a waking dream. Then you come down from that stage and you experience these profound insights based on what you've seen. Once people experience this, they have no withdrawal symptoms or craving.

Anyway, they found this out in the '60s. There was a serious group of people who were working on the fringes, with Timothy Leary, trying maybe 20 or 30 different psychedelics. There was a bunch of people experimenting with different drugs who had 20 people try ibogaine. Seven people were IV drug users. Three were multiple cocaine/heroin users and four were just heroin users. None of them were trying to be cured of heroin addiction. They were into doing different drugs to see what would happen. Five of the seven walked away from their IV drug use without any prompting, without any program. In the

middle of a total drug scene, they just quit.

HT: And these people stayed off heroin?

DB: Six months later, you have to come back and do it again. It's not a substitute like methadone, it's like LSD. One man quit a 25-year coke habit. He also quit a two-and-a-half pack a day cigarette habit, and put on 25 pounds. He also moderated his alcohol consumption. He now looks like a new man. He looks ten years younger.

HT: Are you putting together a drug treatment program?

DB: We're going to start with rich junkies. Within five years we're going to make enough money available so that every single crack user in the United States can get this treatment as an option, immediately, if they get arrested. Instead of going into a treatment program or going to jail, they'll have a drop-in center where they can hang out for a few weeks and get their shit together.

The fact is, most people who do this are no longer into coke. They never do coke again. It's only 70% effective against opiate addictions, so we'd like to have some kind of maintenance program. This stuff also should be good for getting people off methadone. The same addiction mechanisms involved in methadone are involved in heroin.

By the way, this stuff does not stop people from doing alcohol or smoking pot. It moderates use. If we can show people that marijuana is definitely not as harmful as cigarettes, then we win.

That's the basis of the Safe Drugs Movement. That's why the second thing, after decriminalizing users, is to get that cure for addiction out there. Even more important than shifting the market so that what most people have to consume, thrust on them by their street corner seller, is pot—good pot—not coke, not crack.

HT: Who is the Safe Drugs Movement besides yourself?

DB: We are the Coalition for 100% Drug Reform and we address a lot of other things besides safe drugs. The Safe Drugs Movement is something we're trying to get started among people.

HT: Like the peace movement?

DB: More like the safe sex movement. What we feel is going to have to go hand-in-hand with the Safe Drugs Movement, or it won't happen, is that there has to be political empowerment of the potheads. Potheads have to get active.

HT: How can people get involved? What would their first move be?

DB: They should find out from us who the coordinator is for their region, or they can call (212) 677-4899. They may have to let it ring a long time, but eventually somebody will answer. And if they're temperate, if they don't scream obscenities at us over the phone, they'll probably be able to get what they want.

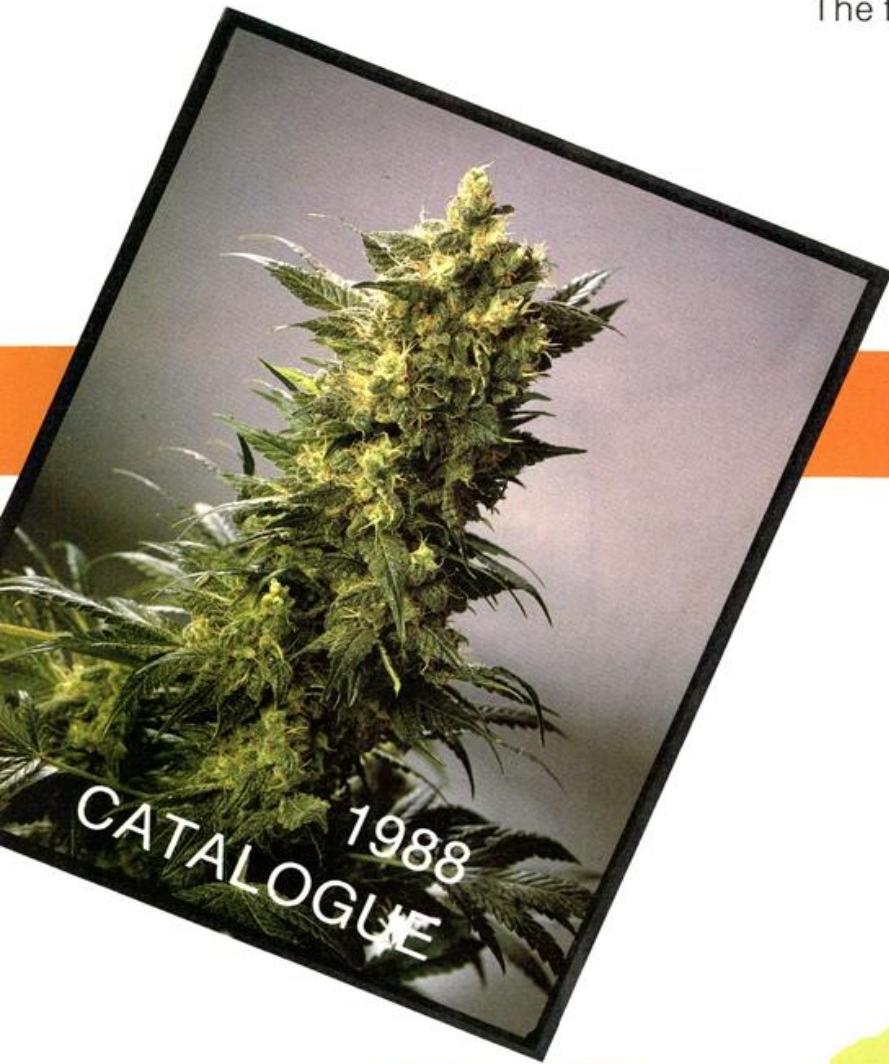
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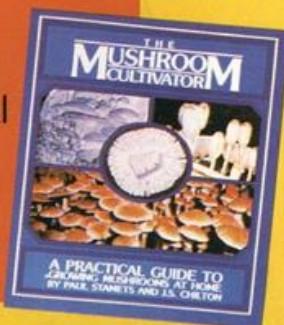
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MDMA

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\$20 for a sample tablet and were recruited to find other sellers. This prompted Senator Lloyd Bentsen, a Democrat from Texas, to write to John C. Lawn, "Acting Administrator of the DEA," asking for an emergency ban on MDMA.

Indeed, Congress had given the Attorney General the power to place any drugs in Schedule 1 for one year, because of the deaths and crippling disease attributed to China White. (This was later ruled unconstitutional.)

On May 31, 1985, a news conference was held in Washington by the DEA. John C. Lawn, in an Associated Press dispatch published in the June 1 *New York Times*, stated, "All the evidence the DEA has received shows that MDMA abuse has become a nationwide problem and it poses a serious health threat. This emergency action is a stopgap measure to curb MDMA abuse until the administrative process can be completed." The story goes on to bluntly state, "Officials of the drug agency said their intention was to replace the emergency ban on MDMA with a permanent ban within one year."

The Problem with the DEA's Handling of the Drug Problem

The actions that the DEA took in this matter are typical of its past patterns of action on other newly popular drugs. Their "hardball" approach to drugs—smear publicity, severe penalties, kick-down-doors enforcement—has not eradicated problems with drugs in the US. Indeed, all it has created is public confusion about drugs and a huge black market.

There is no question that there is a serious drug problem in America. The most widely abused drugs are not even thought of as drugs at all. Nicotine, sold legally in cigarettes, is clearly the nation's most commonly abused drug. Next in popularity is one of the most dangerous and certainly the most lethal of all drugs sold: alcohol—found in liquor, beers, and wines. This drug is legal and sold even in grocery stores.

Of course, the reason that alcohol is now legal is that the 18th Amendment to the Constitution, which instituted prohibition in this country, did not work. In fact, there are few laws against any drug at any time in history that have worked. Edward M. Brecher and the editors of *Consumer Reports* in 1972 published *Licit and Illicit Drugs*, an excellent account depicting the consequences of instituting such repressive legislation.

Particularly fascinating is the section on heroin and the opiate drugs. The account begins with respect to morphine and the opiates that existed in the nineteenth century. At that time, these Schedule 1 narcotics were available over the counter.

Licit and Illicit Drugs concluded that the case of heroin demonstrates the consequences to be expected when a drug is made illegal.

First, the price of the drug goes up, and its distribution is taken out of the hands of experts and put into the hands of criminals.

Second, it criminalizes a group of people who use a particular substance. For heroin, penalties can range up to life in prison.

Third, making a drug illegal usually leads to adulteration of the substance or its being replaced by another compound.

The DEA was set up to police drug use in America. It receives its funding in relation to the severity and scope of the drug problem. Because it is involved in enforcement of drug laws, the DEA's members tend to view any drug use (other than alcohol, cigarettes, and coffee) in a negative way. The DEA also has a strong economic interest in having widely-used drugs made illegal. The more drug-criminals there are to hunt and arrest, the more funding the DEA receives, and the larger the organization becomes. Giving the DEA the power to decide which drugs to criminalize could lead to a constantly expanding police organization, always needing more tax monies.

DEA Tackles MDMA

Many of the problems of criminalizing drugs are apparent in the handling of MDMA. Also, many of the biases of the DEA have been

revealed in the way it proceeded in having the drug placed in Schedule 1.

During the hearings to decide whether MDMA should be made a Schedule 1 drug, it may have become apparent to the DEA that its case was falling apart. It was difficult to show a high potential for abuse of MDMA. It was possible to show that the drug was used, however, with exhibits of amateur fact sheets. Many of these pamphlets are testimonials to MDMA's efficacy.

But those who testified for the Earth Metabolic Design Foundation universally affirmed that there were no people whose lives had been harmed by MDMA. Because of the rapid rise in tolerance caused by repeated use, and the buildup of unpleasant side effects, most people learn quickly that MDMA can only be used occasionally. Taking too much is just not rewarding.

For the same reasons, it can be said that MDMA is not an addictive drug. It is true that some people like to repeat the experience. But it is generally found that the less often MDMA is taken, the more meaningful the experience is. The tendency is to take it less frequently after the first two or three exposures. Also, there was little evidence that MDMA was dangerous psychologically. The data from DAWN emergency rooms cited earlier demonstrate that there are few "bad trips" on MDMA. Richard Seymour of the Haight-Ashbury Free Clinic reports that most of those who do have a bad time and come into his clinic are provided with a supportive environment and reorient themselves as soon as the drug is metabolized. Being nonaddictive and relatively free of negative psychological phenomena, even in unsupervised situations, MDMA looks like a remarkably safe drug, even safer than the most commonly used recreational drugs, illegal marijuana and legal alcohol.

As MDMA became popular and publicized, it was clear that the DEA was dedicated to banning the substance. This was made clear in an article entitled "Federal Authorities Want to Ban Ecstasy," printed in the *San Francisco Examiner*: "We're going to ban Ecstasy within the next several months," DEA assistant administrator Gene Haslip vowed. By next fall, Ecstasy will be as rigidly controlled as heroin. It's extremely dangerous."

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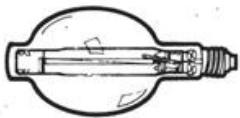
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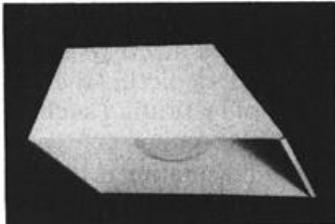
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Listening For Coyote

continued from page 35

There's nothing good about pirates."

"Do I look like a pirate?" The thought is frightening; I often hike at dusk.

"Not really. They look like 'Nam vets, in camouflage outfits, with shoulder .45s and AR-15s or M-16s. They've got no morals at all. Then the pirates just sneak in at night with their faces blackened and take the whole crop. The mob's pirates are the worst. They come in big Huey choppers, with men that jump out and secure the perimeter with automatic weapons while a special team does the harvest with machetes. They're in and out in five minutes."

Now Ron seems to trust me, his hunger for conversation is completely unchecked. My fingers ache from writing.

"You gotta understand how I got into this. I couldn't take risking other people's money all the time. You know what it's like to be a silver broker and have the price fall \$3 an ounce? A lot of people I knew, who had trusted me, lost more than they could afford. The real breaker was one old man from Brookings, Oregon, who used to chat all the time on the phone. I had to tell him he'd lost all his \$60,000. The next time I called, his family said he'd died. By God, I swore right then I was through with risking other people's things. With pot, it's my own neck."

"It's hard work, too. I water my plants every other day from five-gallon cans carried from the creek—no pipes or hoses to give me away. I've got five patches hidden in the woods; the biggest has 28 plants. They'd be tough to spot by air. A hundred plants in all, but only 48 of 'em are healthy, and there's always mice and grasshoppers and deer that get a few."

"You probably think growers like me get rich. Let me tell you, the cops inflate their reports as bad as we upped body counts in 'Nam. If the cops find 100 little sprouts—half of 'em gonna die, and half of 'em male—they'd say there's a pound of pot in each and list them at the top New York City street price of \$3,000 a pound. That'd make 100 plants sound like they were worth \$300,000! Now my 48 good plants will get me a half pound of buds each and I'll wholesale it at \$1,500 a pound. Should clear \$20,000 if I can put off the harvest until Thanksgiving."

Ron looks up into the trees with a smile. "Twenty grand's almost enough. I'm gonna go one more summer, see if I can make \$100,000, and then I'm buying me a one-way ticket to the Seychelles Islands in the Indian Ocean. I've read about what it's like there. The Creole women want light-completed children so bad they'll do anything. And a hundred grand in a tropical paradise like that—shit, it'd be enough to live like a billionaire forever." ●

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Non-Commercial

continued from page 43

On the other hand, non-commercial operations tend to be small and unorganized. A minimum amount of equipment is used in an effort to keep expenses down. Generally, a non-commercial operation will have the following characteristics:

Recognizing a Non-Commercial Operation

- 1) No fence, or a fence that is not well made or adequate for the job
- 2) Small gardens near the residence
- 3) Plants in small holes and/or containers with a small amount of fertilizer
- 4) The watering system usually primitive, often done by hand
- 5) No separate drying shed or processing area
- 6) Random sizes of stash and personal use paraphernalia usually present
- 7) Little or no garden security and camouflaging; and
- 8) A lack of the items listed under commercial operations.

As you can see, recognizing a non-commercial marijuana growing operation is a complicated process. If you should have the misfortune of being busted, this process could play an important part in your defense. Go out and look at your garden. Does it look like a non-commercial operation? Will it look that way to the rest of the world? Even growing for personal use can have serious consequences if your state does not have a diversion program or you are unable to convince the court that you had a non-commercial operation. Consult with your attorney or local law library to find out what the laws are in your state. If you grow, make sure you know the rules of the game, and that you play the game accordingly. ●

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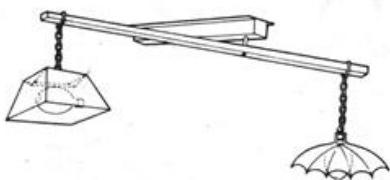
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ASK E.D.

continued from page 57

Dear Ed,

I am in the process of setting up an 8' x 8' grow room. Having previously set up and managed a 4' x 4' grow room with a 400 watt MH and 400 watt HPS with CO₂, I still have a few questions:

1) Which would give the best results? A rotating light mover with 1000 watt horizontal HPS and MH or a 1000 watt vertical MH with a 45° reflector and four 400 watt HPS lamps, one in each corner?

2) Keeping in mind that I will be using CO₂ and the room will be in a fairly cool basement which stays at 65-70 degrees what would be the best way to ventilate? What would the cubic feet per minute (CFM) flow be for both intake and exhaust?

Very truly yours,

—The Bush Doctor

Somewhere in southeast Missouri

Of the two systems you suggested, the stationary system with five lights totalling 2600 watts would produce and deliver more light to the plants than the 2000-watt two lamp system. The idea of using the vertical lamp to spread the light in the room is understandable, but may actually be less efficient than a horizontal lamp. A light meter can be used to measure light distribution throughout the room. Then the lights can be spaced for even light distribution.

Air flow without CO₂ should equal cubic space of the grow room every 10-15 minutes or shorter if there is a heat buildup. With CO₂ enrichment, the advantage of evacuating the air is lost. Instead the flow should be thermoregulated. Of course humidity must be taken into account, especially during the last parts of flowering. The space has 640 cubic feet. At a 10 minute rate, 64 CFM would be needed. At 15 minutes about 42 CFM would be required.

Dear Ed,

I've been told to hang my plants upside down to allow resin to flow from the roots and to boil the roots to force the resin up. True or false?

—El Growmanship
U.S.A.

Dear Ed,

When harvesting my plants I've always hung them upside down to dry. I've heard of some people drying stuff in the oven to speed up the process. I was wondering if it has any effect on the buds?

—Drying Out
Coshocton, Ohio

Dear Ed,

I've been told that pot loses a lot of the THC when dried hanging upside down like tobacco, and that it can be cured

using dry ice to retain most of the THC.

—Pep

San Francisco, California

Drying in the oven, the grass will lose much of its aroma since the mono and di-terpenes responsible for the smell evaporate at higher temperatures. It will also lose much of its smoothness since the natural curing processes are aborted. Finally, if the temperature in the oven gets over 150 degrees there may be actual loss of the cannabinoids, the active ingredients of the plants.

Hanging the plants upside down is not a great method of drying either. As the plants dry, the glands are prone to fall off. You can see thousands of glands cascading through the air as the plants are being moved. The potency is literally up in the air. Instead, before drying, the plants should be cut into branches which are manageable to deal with.

Dear Ed,

I've just harvested and sampled a hybrid plant I bred from two of my favorite strains and the results were disappointing. While I understand that luck plays an important role in plant genetics, I can't understand why my hybrid was less potent than either of its parents.

I should mention that the parents were pure strains and the plants all had identical growing conditions.

Sincerely,

—Confused Canuck

Vancouver, British Columbia, Canada

Since you mentioned only one hybrid, I presume you grew only one plant. This is too small a sample to make any generalizations about. The plant's genes dealing with potency could all have been recessives on its parents which were hidden by more dominant genes.

Let's assume that you had a larger sample, say ten plants, and they were all poorer quality than their parents. You would conclude that the two varieties are each fairly homogeneous. This means that there is not much variation in the plants of either variety.

Genetically, this means that each of the plants have the same or similar genes and that the pairs of genes in each plant are also very similar. Chromosomes, and the genes which they hold, come in pairs. Each parent supplies half of each pair.

Should the hybrid offspring of two potent homogeneous varieties fail to be potent, it indicates that the genes of the varieties producing this plant are incompatible. They produce enzymes which somehow cancel out each other's effects.

Dear Ed,

After four months of growing plants of unknown origin under 18 hours of light they reached heights of between 2 1/2 to continued on page 87

MDMA

continued from page 71

When the DEA ban was announced on May 31, the major reason given for the evoking of the DEA's emergency powers was a study done at the University of Chicago and submitted for publication in *Science*. The study revealed that the drug MDA has been shown to cause brain damage in rats.

When this report was examined more closely, however, it became clear that many aspects of the report made its application to the use of MDMA by humans highly questionable.

The drug used in the study was MDA, which is chemically distinct from MDMA. While they are both empathogens with somewhat similar mental effects, they are molecularly different, and probably affect the brain in different ways.

Testimony of two hearing witnesses, medical chemist David Nichols and pharmacist June Retlinger, presented good evidence for the chemical distinction between the two substances. According to Nichols, there is no cross-tolerance between MDMA and MDA. If you take MDMA until it no longer has an effect, you can then take MDA and it will still have an effect, and vice versa. This points to separate sites of action in the brain.

Both Retlinger and Nichols point out that MDA and MDMA have opposite isomer activity in their effect on the brain. Actually MDA, according to Nichols, can be thought of as two separate psychoactive drugs, with each of the stereoisomers having quite different psychological effects. MDMA has only one active (S) isomer, the opposite of the more active MDA isomer. The DEA's own report points out that there is evidence that MDA and MDMA have different pathways of action within the nervous system.

Alexander Shulgin, Nichols' colleague, commented that MDA resembles MDMA, but it also resembles the over-the-counter allergy remedy Sudafed (pseudoephedrine hydrochloride). Should we place this commonly-used patent medicine on Schedule 1 along with MDMA?

Several other clear objections to the Chicago study are found in the

continued on page 77

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the editors of **High Times** magazine)

LETTERS

continued from page 58

MORE GONE GONE GUYS

First off, I'm not some feminist who's "on your back," and I hardly think you're victimizing women by showing suggestive pictures. I just want to voice the opinion of a female subscriber. You say that 90% of your readers are male. I also understand that "sex sells," thus resulting in some of your sillier ads. I guess I'm discouraged because I thought HIGH TIMES was above this stuff. I like your mag because it shows alternative—not mainstream viewpoints. My solution is easy: HOW ABOUT SOME SEXY PICTURES OF MEN!? And I don't mean some idiot wearing a g-string who looks like he just stepped out of Chippendales either! C'mon guys: women have eyes too, and we definitely enjoy the "innocent pleasures of sex appeal."

—J.R.

Tallahassee, Florida

While I can't consider myself a hard-core feminist (I don't read Cosmo, Vogue or Elle), I like to see a little flesh too. You talk about sex appeal. What could be more appealing to ALL your readers than a sexy couple doin' what good ol' Mother Nature intended?

—M.C.M.

No postmark

ROSE IS A ROSE

Okay, let me get this straight. For ten years our government has told us that drug users can't hold jobs, have low work performance, are unreliable and easily identified. So we test their urine to identify them. Use task forces and secret police to persecute them. Use unconstitutional laws to make them felons, so they can't vote. Eliminate them from participating in public office. Wage war in our streets to remove them. Kick them out of the military. And when all this fails, we make plans to gather them up and execute them in the name of justice. Why not make it even easier for children to understand? Make all the drug users Jews, and the Reagan administration can play Nazi. Put a hammer and sickle on our flag and they'd be set. When your safety becomes more important than your freedom, then your freedom is no longer safe.

—Semore Freedom
No postmark •

HIGH ART

continued from page 66

screen can translate reality as clearly and vividly as color. There's something of a b&w/color schism in our images of the world, however. Media has transcribed so much of our awareness to us in black newsprint, and fabricated so many narratives in living color that the subconscious verisimilitude of black-and-white may exceed that of color.

The collages of **Bruce Conner** play with the early printing-press role of engravings to disseminate information, constructing their own surreal pictures out of cut-up bits of visual data. Those aware of Conner's films—pioneering works for Devo and Byrne/Eno ("America Is Waiting"), seminal masterpieces in the birth of music video—will recognize the same sort of subversive rearrangement process at work in these collages as occurs in his films. Made out of humorously assembled clips from the '50s, it's all frighteningly familiar, but transcendental too.

Kim Seltzer also relies on our acquaintance with stock printed black-and-white images, to construct her mythically charged pictures. In the examples shown here we see stylized derivations of cabalistic tarot cards and *National Examiner*-like reportage on alien invaders. Each is a personal emotive fantasy that builds upon already entrenched black-and-white lore.

Another aspect of black-and-white art is the potency of line. In the work of **JaCaeber Kastor**—printed here are an early, mid-'70s example and a recent, more complicated piece—the artist employs the facility of lines to belong to more than one form, and uses this flexibility to define dozens of overlapping realities in one densely-knit space. Carefully examine his totem here, and try to pick out all the different forms that are encrusted along this primal psychic nerve.

The linear web of **Steve Leavitt's** thick psychedelic mesh is as brimming over with ideas and energy as Kastor's—but, where Kastor's art is figurative, Leavitt's is abstract. Leavitt fills the small spaces of these fanciful drawings with an obsessiveness that is haunting. There is an endless number of trips to be taken through Leavitt's psycho-gothic playpen of poisonous curlicues.

As you can see just from this modest portfolio of four artists, the borders of the black-and-white universe go to the edge of infinity. Besides, if you don't like this, we can always send it over to Ted Turner and have it colorized. •

MDMA

continued from page 75

following excerpt from the research report itself:

"Our study raises the question of whether MDA produces 5HT neurotoxicity in humans. Given differences in species, dose, frequency and route of administration, as well as differences in the way in which rats and humans metabolize amphetamine, it would be premature to extrapolate our findings to humans. It should also be noted that the doses of MDA required to produce 5HT neurotoxicity in the rat (5-10 mg/kg) are roughly three to five times higher than those required to produce hallucinogenic effects (approximately 1.5 to 3 mg/kg). Hence, doses of MDA generally ingested by humans may not be sufficiently high to induce 5HT neurotoxicity unless humans prove to be more sensitive than rats to the toxic effects of MDA."

The "difference in species, dose, frequency, and route of administration" refer to the procedures followed in the experiment, in which the drug was 1) given to rats rather than humans, 2) given in the much larger doses, as noted in the subsequent sentence, 3) given every twelve hours for two days, and 4) given intravenously (injected in the vein) rather than orally, the usual route of administration in humans. Taking a drug orally results in smaller amounts of the drug reaching the brain than if taken by IV injection.

In August 1985, Intox Laboratory performed a further study in which a group of rats were given an escalating series of rather stiff doses of MDMA. They were started off at 25 milligrams per kilogram of body weight, and the amount was increased by 25 mg/kg each day thereafter. The average psychoactive dose taken by humans is about 2 milligrams per kilogram.

Eventually, all the animals died when the dosages reached between 15 mg/kg and 300 mg/kg. This is about 150 times the normal human dose. When the rats were examined, there was no evidence of histological brain damage. Although the second study does not use the same techniques as the first, it must raise doubts about the evidence provided by the former study. ●

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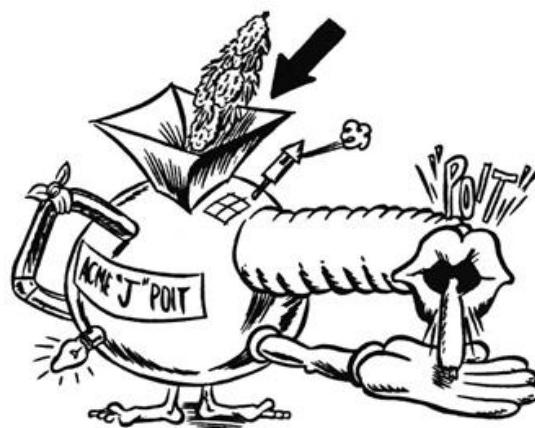
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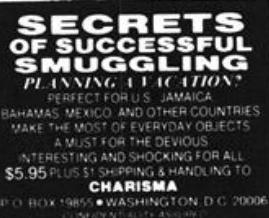
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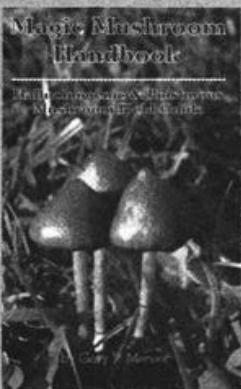
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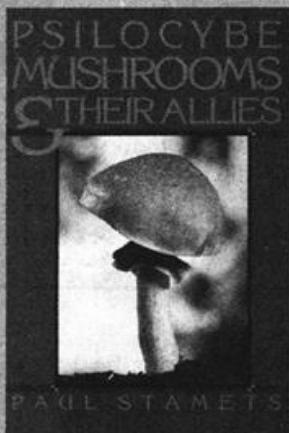
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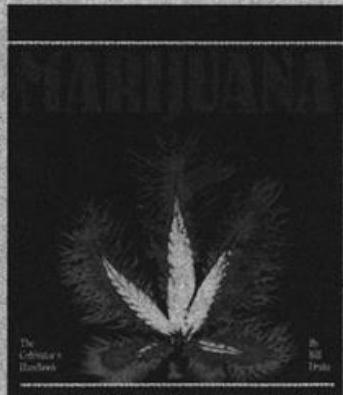


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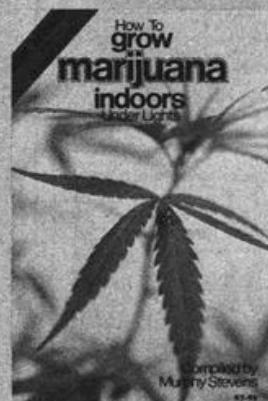


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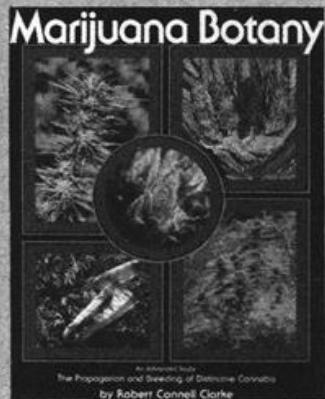
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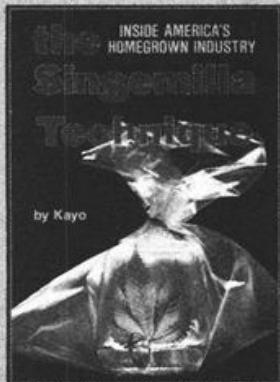
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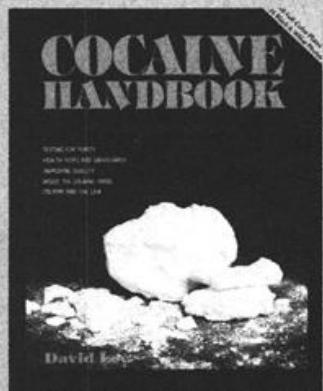
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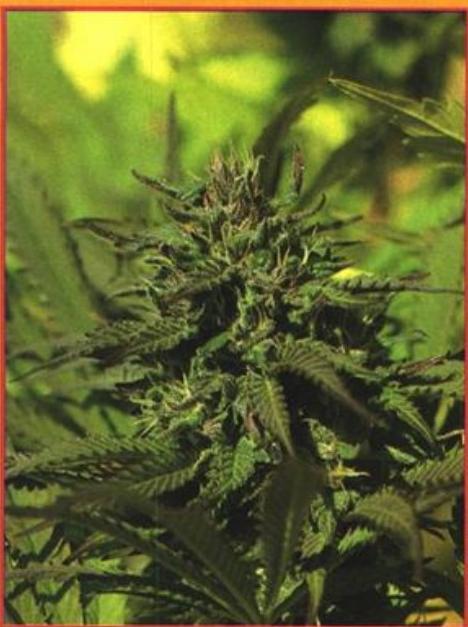
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NEXT MONTH



DEBBIE DAVIS

Meet the "Boys from Brazil," who aren't Nazis in South America, but fully rooted Cannabis clones raised by Dr. Indoors. In "Mushrooming's Maddest Hatter," Peter Gorman visits Stephen Peele, director of the Florida Mycology Research Center, whose research on mushrooms and the immune system has been stifled by the DEA.

PLUS: John Mood's travels in Indonesia, and the final installment of "Ecstasy: The MDMA Story" by Bruce Eisner.

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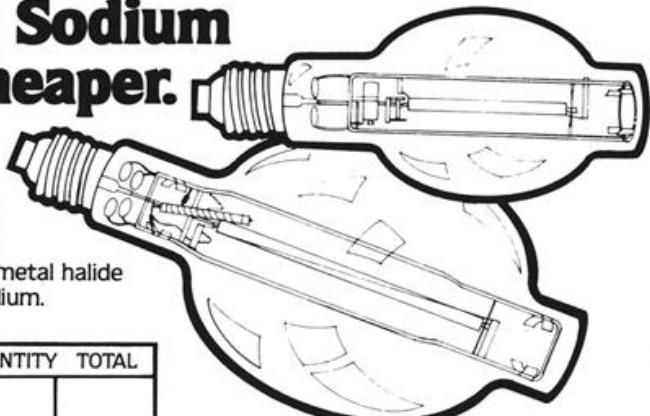
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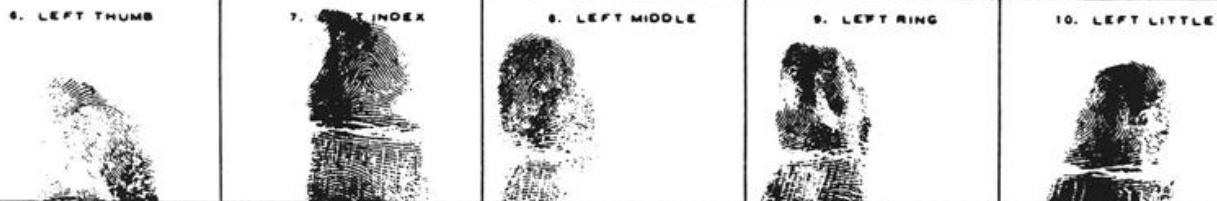
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If you or someone in your family has been arrested for marijuana, please write us about your experience.

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Please send a generous donation or join NORML today!

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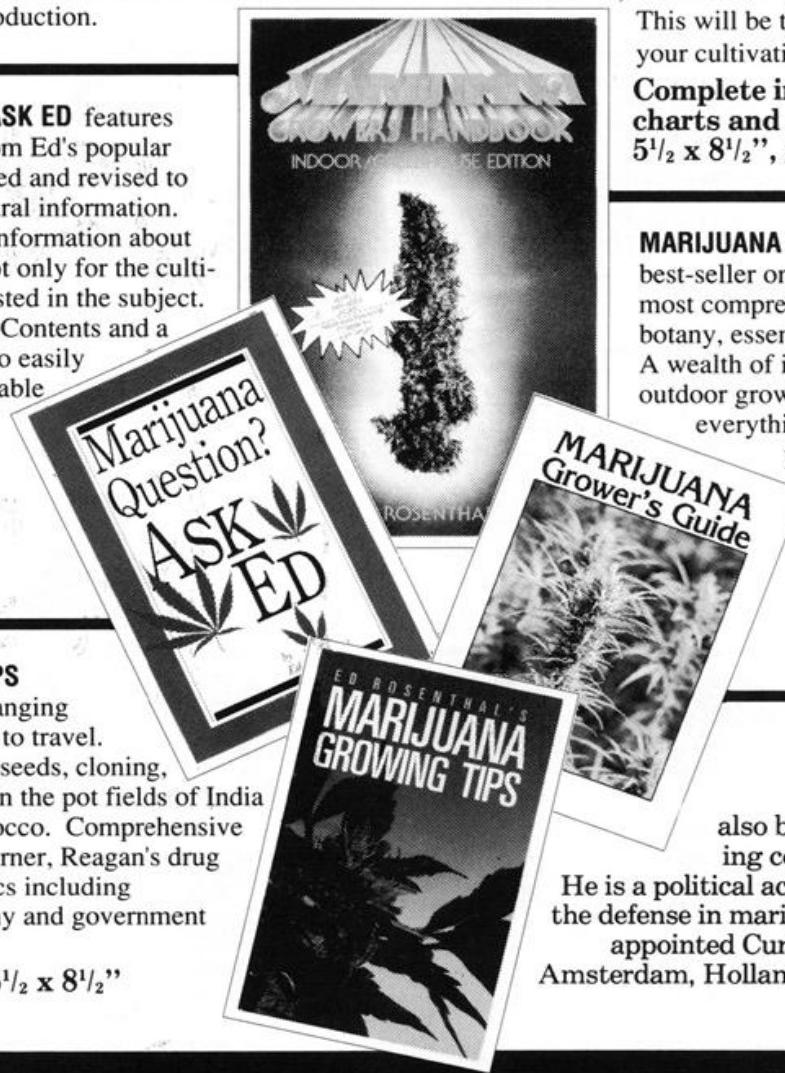
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Ed Rosenthal has been a marijuana researcher and botanist since 1967. He has also been a High Times contributing columnist since its beginning. He is a political activist and expert witness for the defense in marijuana cases. In 1986, he was appointed Curator of the Hash Museum in Amsterdam, Holland. He travels extensively for research purposes.

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ASK ED

continued from page 74

4½ feet. Then for three weeks they were under 14 hours of light, seven weeks at 13 hours, and three weeks at 12 hours.

The plants have reached 6 feet and have flowered profusely, very few of the buds have closed and no resin glands have developed. How long does it take for the flowering process to be completed?

Yours truly,
—Maxxed
Illinois

With most marijuana varieties the process would have been completed long ago. Since the seeds were of unknown origin, you have no way of knowing what they were destined to become or what their maturation cycle is like.

Dear Ed,

You do not need a lot of money to set up an indoor garden. Here's how I got mine going. My unit is a closet 3'×5'×8'. Light is provided by a 400 watt HPS industrial grade lamp given to me because my employer thought it was too noisy. I fixed it (some of the screws were loose) and constructed a reflector from an aluminum sheet. Air is exhausted by a fan from an air filter-cleaner which I bought for \$3 in a second-hand store. My air circulation is a 3-speed oscillating fan, which I found discarded. I purchased two 4-foot shop lights, two timers, a six-outlet multistrip, soil mixers, fertilizer, humidity gauge, thermometer and a light/soil/moisture tester.

I used the fluorescents to start the seeds. Then I transplanted them at 4" into discarded one-gallon pails with drainage holes punched in the bottom. The pails sit on plates to catch excess water.

Now I am planning to build a hydroponic unit from my junk pile. It's in the process of my mind. Growers can save big bucks being creative.

Thank you.

—S.B.
Northern Indiana

Thanks for your constructive advice, S.B.

• I welcome comments, tips, and questions regarding marijuana and marijuana cultivation. Send all letters to Ask Ed, HIGH TIMES, 211 E. 43rd St., New York, NY 10017. Also send entries for the Bud, Plant, and Garden of the Month Contests. All correspondents whose letters or photos are used will receive a free copy of my book, *Marijuana Question? Ask Ed.*

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The Man Behind Ibogaine

continued from page 68

While talking to Dana about the Safe Drugs Movement, he introduced me to Howard Lotsof, the founder of the Dora Weiner Foundation, and the man behind the use of ibogaine as a cure for chemical drug addictions.

Howard Lotsof: The original work on ibogaine was done in the early '60s, and it was quite a surprise. We did not realize that it had this ability to interrupt heroin and cocaine dependency at all. In 1962 and '63, we administered it to a total of 20 people. Seven of them were narcotics addicts. Two days later, five of them gave up narcotics for at least six months. I mean, their desire for narcotics was completely gone. I was 19 years old at the time, and had no idea how to pursue pharmaceutical development in a legitimate way.

HT: Where was the experiment set up?

HL: I was running a laboratory called S&L Laboratories.

HT: At the age of 19?

HL: Yes. You have to understand—this was the '60s and everything was wide

lives, their jobs, their schools—to anything. They're no longer addicts. And every test which has been conducted to date supports our findings.

HT: I'm surprised that, with an instant cure for addiction in your hands, people aren't beating down your door to help market it.

HL: At first I found it very discouraging that people did not come to our banner immediately. Then I saw a program on the development of penicillin, and the similarities were just amazing. Fleming, even after he had proved that penicillin was effective, had to do exactly what we're doing. Like us, he had to travel around the world to try to gain interest. In his case, penicillin, in our case, ibogaine to fight addiction.

It was only at the beginning of World War II when the US government realized it was going to have hundreds and thousands of battlefield deaths due to infection and finally guaranteed the funding to the pharmaceutical industry to develop penicillin. Do you realize if it wasn't for the World War II, we most

"Ibogaine had the ability to interrupt both cocaine and heroin dependency with a single treatment..."

open. Legitimate, so-called ethical, pharmaceutical companies were giving experimental drugs to dealers on the black market and asking them to find out what effects these had on their customers. That just won't happen today, hopefully. Anyway, we administered this stuff. We were evaluating its psychotherapeutic effect and we gave it to 20 people; seven of those persons were narcotics addicts. And two days later, we realized that we had a completely unexpected result on our hands. Ibogaine, which we were calling Endabuse for marketing purposes, had the ability to interrupt both cocaine and heroin dependency with a single treatment. Every other treatment procedure, whether it was behavioral modification or methadone or bromocriptine, puts a detoxifying addict right back on the street, where one question is running through his or her mind every minute of every second of every day: Should I or shouldn't I get off? Ibogaine removes that question. That means that people can go back to their

likely would not have antibiotics today?

HT: War speeds everything up. Makes governments desperate enough to try anything.

HL: Well, it looks like AIDS is speeding up the development of ibogaine within the United States. We're literally turning the government around.

What's very interesting is that the Canadian government has made us very welcome. Our major research efforts are going on in Montreal at this time, and next week we have meetings with the major research institution in Montreal to determine if we can come to a business agreement to proceed with a very direct testing on both animal and humans to bring this product to market.

HT: If someone is strung out, or has a friend who is, can they sign up for a test program?

HL: Yes. Anybody that's interested in participating in a research program can write to the Dora Weiner Foundation, PO Box 168, Staten Island, NY 10310. The Foundation responds to written requests only. •

Celebrities, Famous People, Movie Stars, BUMS & SCUM!

That's what this month's exciting new back issue has to offer—stars, bums and scum! Yes, as hard as it is to believe sometimes, HIGH TIMES has been right on top of the star-dudded celebrity scene all along! (Not that we've ever been a CELEBRITY magazine or anything.)

RARE ISSUE!

Aug. 1977 No. 24

The Andy Warhol Interview, The Great Grass Trials (Robert Mitchum, Candy Barr, Leslie A. Fiedler, and Michael Metzger), Dolly Parton, National Marijuana Day, The Lolita Complex, The Coca-Cola Conspiracy, The Ugliest American, the Fabulous Furry Freak Brothers.

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May 1978 No. 33

Muhammad Ali, Lou Reed, and Patti Smith: Three American Poets, Dateline: Punk London, Interview with the Unknown Comic, Dylan's movie, How Success Ruined His Sex Life, The ABC's of How to Be Cool, How to Make a Movie for \$10,000 (by Amos Poe), Royal Nepalese, The Making of The Smugglers.

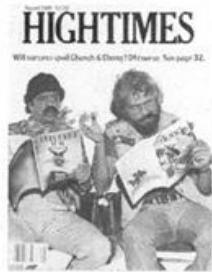
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Aug. 1980 No. 60

Cheech and Chong Interview, The Strange Phenomenon of Cattle Mutations, The Invasions of the Space Narcs, Ron Reagan Pinups, Confessions of a 63-year-old Pot Virgin, Chapter and Verse from Bob Marley, Steroid Madness: Drugs and the Olympics, The Persecution and Assassinations of the Parapsychologists... (by Robert Anton Wilson)

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Mar. 1981 No. 67

Johnny Paycheck Interview, Cheech and Chong Sneak Preview, The Soldier of Fortune Convention, The Dirty Parts of the Bible, Trenchtown USA, Camouflage: Growing Undercover, Anatomy of a DEA Sting, Zippy comic (by Bill Griffith), Studs Kirby comic (by Peter Bagge).

\$5.00



Jul. 1981 No. 71

George Romero Interview, D.O.A.: A Chronicle of the Sex Pistols Documentary (A HIGH TIMES Film), William Burroughs Book Bonus (Illustrated by Ralph Steadman), Third Annual Connoisseur Awards, Grow American: In Pursuit of the Perfect Cola, Cabala: Tasting the Forbidden Fruit of Life (by Robert Anton Wilson).

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Aug. 1981 No. 72

Tommy Rettig Interview (the kid from Lassie!), Celebs Nix Coke Probe, The Sorcerer's Apprentice: Nikola Tesla, LSD '81: Marketing the Better Blotter, Cocaine Colonialism: How the Fascists Took Over Bolivia, Al-Kayf: An Instructive Guide for Travelers to Morocco, Grow American: Arizona High-Ways.

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SHORT SUPPLY!

Mar. 1982 No. 79

Stevie Nicks Interview, Mick Jagger Meets Miles Davis, Gerry Cooney Interview, Century of Hope (by Drew and Josh Friedman), Seven Marijuana Myths (by Dean Latimer), Grow Himalayan, I—A Coke Whore (by Victor Bockris), Zippy comic (by Bill Griffith), Mr. Know-It-All comic (by J.D. King).

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Jun. 1982 No. 82

Sneak Preview: Conan the Barbarian, Sex and Drugs and Tom Fordade (by Dean Latimer), Into the Nightlife, Dope Connoisseur Interview, A Sympathetic Feminist Talks to Men About Sex, Stand Back! Here Comes The Force: Spiritualism and Psychokinesis.

\$5.00



Dec. 1984 No. 112

Wild Style—Global Trends in Music Fashion Politics, Barhopping in Berlin, Barcelona Boogie, Tokyo-A-Go-Go, The Unsung Heroes of Rock 'N' Roll, Free Calendar, Interview with a Northern California Grower, Oregon Marijuana Initiative Torpedoed, Cultivating the Alaskan Highway.

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Jan. 1985 No. 113

New Music Notes: Lou Reed, Peter Wolf, James Brown, Madonna, and Afrika Bambaataa Speak Out, Profiles of Dr. Albert Hofmann and Baba Ram Dass, Hash-making in Lebanon, Outlaws in Babylon (fiction by Steve Chapple), The Debut of the Funny Papers (with comix by Gary Panter, Wayne White, Mark Newgards, and Mark Marek).

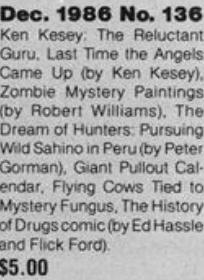
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May 1985 No. 117

Desperately Seeking Susan (Madonna, Rosanna Arquette, and Susan Seidelman), Jazzin' in the Big Easy: The New Orleans Jazz and Heritage Festival, How to Spot a Yuppie Junkie, The War Against Apartheid, Confessions of a Yuppie Junkie, Inside the Mushroom Lab, All-American Roots Rock.

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MEDIA ROOM



Teenage Devil Dolls and Lost Weekends

by Jim Poling

WHO KILLED BABY AZARIA?

With Elaine Hudson, John Hamblin, Max Phipps. Directed by Judy Rymer 1983 (Prism)

First film version of the most notorious murder trial in Australia's history (redone this year with Meryl Streep, based on the book *Evil Angels*). In 1980 Michael and Lindy Chamberlain and their family camped for an evening on a sacred Aboriginal site and lost their baby daughter Azaria forever. The mother claimed

she saw a dingo carry the baby away, but, whether it was the couple's cold public attitude or their pious though misunderstood religious beliefs (they were Seventh Day Adventists), the disappearance outraged the public and the compounding hysteria put Lindy on trial for murder. It's interesting that the couple is not particularly likeable. When Lindy Chamberlain is convicted of infanticide there's a sigh of relief. But there's also a disturbing second thought: She was found guilty despite there being no motive, no murder weapon and no body. This film was made before a crucial piece of evidence was discovered, but it's recommended, as is the book *Evil*

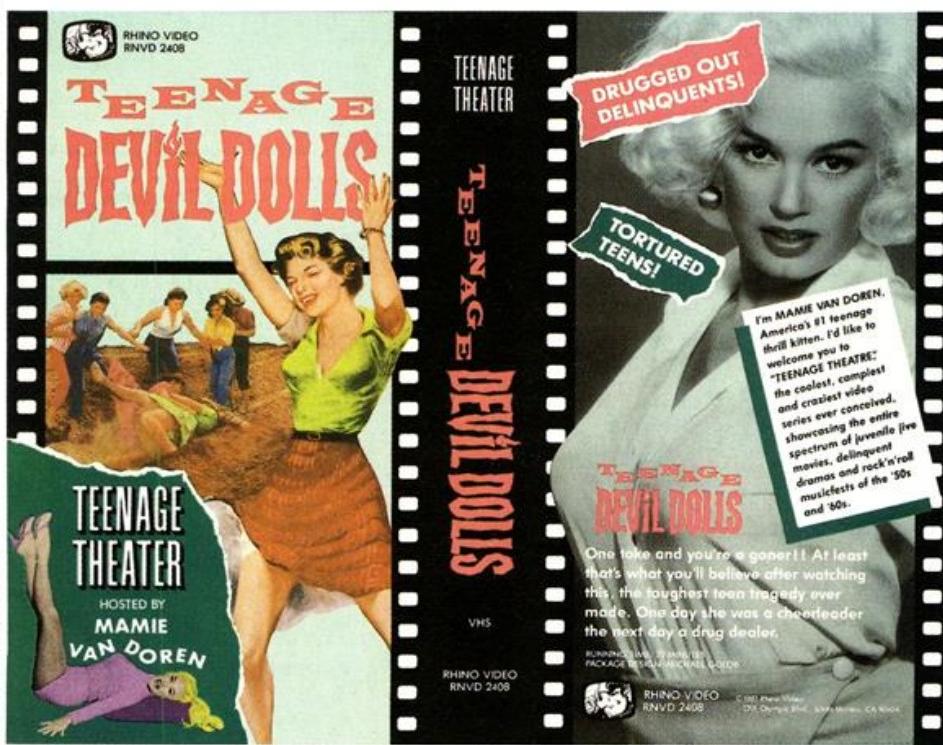
Angels which finally answers the question of what really happened.

TEENAGE DEVIL DOLLS
With Barbara Marks, Robert A. Sherry. Directed by B. Lawrence Price, Jr. 1952 (Rhino)

The *Dragnet*-style narrator introduces the characters as "One neurotic mother, one very tired father and one 19-year-old girl whom we shall call... Cassandra." Poor Cassandra. It's that first toke with cycle bums, all of whom "suffer in various degrees," that pitches her headfirst into heroin addiction and being "goofed-up" on her back lawn. A sleazy and very obscure gutter film; and one of a handful of teenage trauma movies hosted by 57-year-old teenager Mamie Van Doren who happens to look younger than Cassandra.

THE BOSTON STRANGLER
With Tony Curtis, Henry Fonda, George Kennedy, Sally Kellerman. Directed by Richard Fleisher 1968 (CBS/FOX)

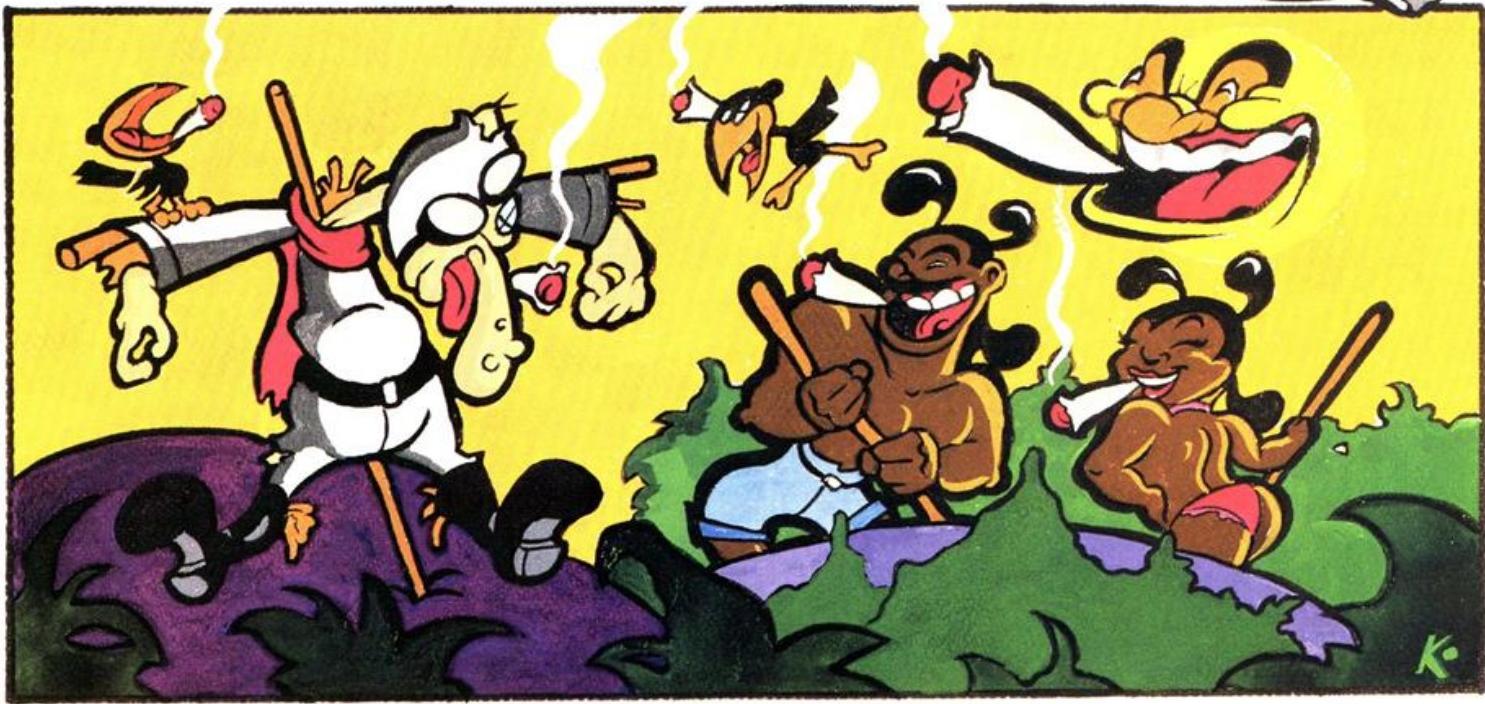
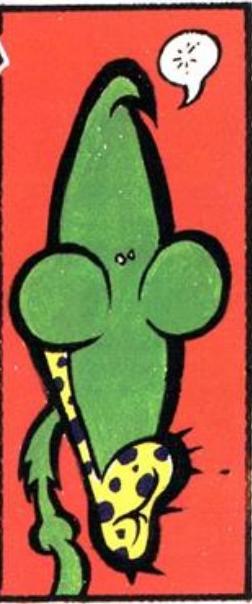
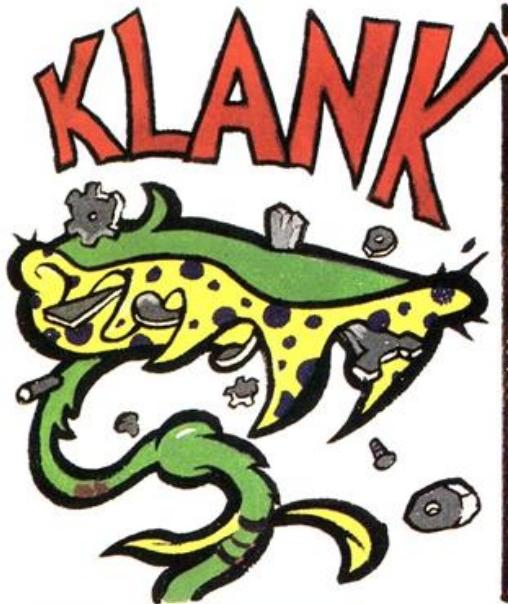
Slobbering, sincere and simple-minded movie, based on Gerald Frank's bestseller about the alleged strangler Albert De Salvo. Here, maniacs are described as "fullblown"; the depth of the film's psychological understanding can cause one's eyes to roll—a detective says, "Aha! Multiple stab wounds around the breast and one dead center. The sure mark of a queen!" The unfortunate victims are reduced to naked body parts sticking provocatively into the frame. An ineffectual split screen device (up to six images at a time) allows you to contemplate DeSalvo's feet, a pair of bugged eyes, a mailbox or leaving the room to make a sandwich.



Rhino Video specializes in wacky movie releases. Check out their catalogue!









by Michael J. Weldon

Why Opie gets \$30 million to play with

KEITH HAMSHIRE



Opie filming Willow.

It's no secret that actors usually have giant egos. Many famous/successful stars have decided that they could do a better job of directing than the pros. Other less famous actors have turned to directing out of desperation, after appearing in too many flop movies. Some try directing once and give up, others make a new career out of it.

Some of the earliest star/directors were silent comedians like Buster Keaton and Stan Laurel. The most famous, Charlie Chaplin, directed, wrote, and usually produced all of his features after 1914. His last film, *A Countess From Hong Kong* (1967), starred Marlon Brando, who had already directed himself in *One-Eyed Jacks* (1961). Brando actually took over from Stanley Kubrick and did a pretty good job. Two of his co-stars in that off-beat western also directed features. Karl Malden directed *Time Limit* (1957), about the trial of an American accused of treason during the Korean War. Timothy Carey, a scary-looking character actor, produced, directed, wrote, and starred in *The World's Greatest Sinner* (1962) about an insurance salesman who proclaims himself God! The music was by Frank Zappa. (Carey and Zappa both later appeared in HEAD.) In 1949, Burgess Meredith directed *Man On The Eiffel Tower*. Burgess also acted in it, but the star was Charles Laughton, who went on to direct the incredible *Night Of The Hunter* (1955). Another actor in *Eiffel*, Robert Hutton, directed and starred in one of the worst movies ever made, *The Slime People* (1962). One of the *Slime* stars was Tom Laughlin (using one of his many pseudonyms), who had already produced, directed, and starred in two ridiculous religious-themed obscurities, *The Proper Time* (1960—when he was only 22) and *The Young Sinner* (1961). He re-emerged as Billy Jack in the biker movie *The Born Losers* (1967) and went on to produce, direct, and star in four more Billy Jack movies. Unfortunately, after his great early '70s successes, *Billy Jack Goes To Washington* was never released, and *The Return Of Billy Jack*, started two years

ago, seems to have been abandoned.

Robert Montgomery (father of Elizabeth) started directing himself in *Lady In The Lake* (1947), a Phillip Marlowe mystery with the gimmick of everything being seen through the detective's eyes. Montgomery also directed four more films. During the '50s, Mel Ferrer directed three features, including the strange *Green Mansions* (1959), starring his wife at the time, Audrey Hepburn. Jose (no relation) Ferrer directed half a dozen interesting films in the '50s, but gave it up after directing Pat Boone in *State Fair* (1962). *Creature From The Black Lagoon* star Richard Carlson directed five features, and *Casablanca* co-star Paul Henreid directed six, including JD titles like *Girls On The Loose* and *Live Fast, Die Young* (both made in 1958).

Some one-time director/stars were Sinatra (*None But The Brave*, 1965), Peter Sellers (*I Like Money*, 1962), James Mason (*The Child*, 1954), George C. Scott (*Rage*, 1972), Albert Finney (*Charlie Bubbles*, 1968), Charlton Heston (*Motherlode*, 1982), Burt Reynolds (*The Midnight Man*, 1974) and Barbra Streisand (*Yentl* 1983). Dennis Hopper, of course, started directing with *Easy Rider*. After its great success, Peter Fonda directed himself in *The Hired Hand* (1971), the barely-released *Idaho Transfer*, and *Wanda Nevada* (1979), featuring his father. Jack Nicholson directed the X-rated *Drive He Said* (1971) and later made *Goin' South* (1978), co-starring with Brando. Hopper temporarily ended his directing career with *The Last Movie* but is now working on his fifth feature as director, *Backtrack*, produced by Dick Clark (!).

Financially, the most successful actor/director of all time is Stallone, whose *Rocky 2, 3* and *4* all made over 30 million dollars. Even *Stayin' Alive* (starring Travolta) made money. Incredibly, the second most successful actor/director is Leonard Nimoy, whose *Star Trek 3* and *4*, and *Three Men And A Baby* each earned over three mil. Other actor/directors who have turned out product making over the

three Mil mark are Mel Brooks (*Blazing Saddles* and *Young Frankenstein*), Carl Reiner (*The Jerk* and *Oh God!*), Tom Laughlin (for two *Billy Jacks*), Sidney Poitier (*Stir Crazy*), Clint Eastwood (*Sudden Impact*), Warren Beatty (*Heaven Can Wait*—he was the co-director) and Opie himself, Ron Howard (*Cocoon* and *Splash*). Howard recently finished the 30 million dollar budget *Willow*. If it's not a major hit he might end up on "Happy Days" reunion movies.

Other actors who have directed included the very famous—Olivier, Attenborough, Welles, Redford and Newman; action stars—Bruce Lee, Jackie Chan, and Fred Williamson (who has directed 10 movies!); and the ridiculous—Mickey Rooney (*The Private Lives Of Adam And Eve*, 1960), Telly Savalas (*Beyond Reason*, 1977), and Laurence Harvey (*Tender Flesh*, 1973).

Lately, things have really gotten out of hand. Because of the recent boom in film production (many releases will go direct to video), everybody thinks they can direct. Some actors who have recently turned director include (and I'm not making these up): Beau Bridges, Danny DeVito, John Saxon, Rip Torn, Henry Winkler, Penny Marshall, Cheech Marin, Keith Gordon, David Keith, Emilio Estevez, Robby Benson, Klaus Kinski, Yaphet Kotto, Anthony Perkins, Charles Martin Smith, Richard Pryor, Prince, Donovan, Christopher Guest, Bob Hoskins, and Robert Englund (Freddy Kruger).

And how could I forget past (and current) actor/directors, some much more talented than others—Woody Allen, Ray Milland, Ida Lupino, Richard Benjamin, Jackie Cooper, Darren McGavin, Peter Lorre, Lee Grant, Alan Alda, Cliff Robertson, Cornell Wilde, Hugo Haas, Dick Powell, Jack Lemmon, Elaine May, Marshall Thompson, David Carradine, Alan Arkin, Richard Burton, John Cassavetes, William Conrad, John Derek, Gene Kelly, George Montgomery, David Hemmings, Anthony Newley, Roddy McDowell, Walter Matthau, Jack Starrett, Dave Thomas, Nancy Walker, Jack Palance, John Saxon, Paul Michael Glaser. . . . ●

Can you pick out the three famous actor/directors? (Left to right: Dennis Hopper, Feliciano, Peter Fonda, J. Jefferson, and Jack Nicholson.)



UPI PHOTO COURTESY THE PSYCHOTRONIC ENCYCLOPEDIA.



Buck Owens — A Goddamn Genius

by James Marshall

It was one of those silly Country Music Awards TV shows. A bunch of sorry-ass mall-cowboys thanking each other and handing out bowling trophies. So they trot out this year's hotshit young whippersnapper in designer jeans, Dwight Yoakam, who, being a traditional-minded dude and all, brings out his big childhood inspiration to see said hero properly recognized by the gnarly old nazis that run Nashville. Only this inspirational guy happens to be Buck Owens, quite a gnarly fella himself. So Dwight and Buck sing a duet (I think they just cut a record, by the time you read this it'll probably have been a hit for months), and when the musical interlude is over, with what can only be described as a shit-eating grin on his face, Buck bows deeply from the waist while whisking his stetson from atop his dome and holds the stetson over his chest. "What a gentleman," you might think, but let us return to that aforementioned just-gulped-feces expression on Buck's mug. The reason for such a look on his normally sour puss is that he knows damn well that the young man who is paying him homage (Dwight Yoakam if you're having trouble following the action) is a fucking BALDIE who cannot remove his own stetson for fear of having the female segment of his audience laugh, so he just kinda tips his hat and looks stupid. For reasons like this Buck Owens is rarely acknowledged.

Buck Owens? That glazed-over cornball who's been acting like a moron for decades on the absolute worst and longest-running TV show in syndication history, *Hee Haw*? Yup. I say he's a genius, or was in his prime (1960-1970) anyway, and stood along with George Jones, Lefty Frizzell, and Jerry Lee Lewis as the greatest of post-Hank Williams country singers.

Born in Texas, raised in Arizona, home-based in Bakersfield, California (a real shithole—don't even stop for gas there), he was to country music in the '60s what the Rolling Stones were to rock 'n' roll—an unapologetic cowboy boot to the



Yeah, he's been acting like a moron for decades, BUT...

hemorrhoid area, stripped to the basics, derivative as hell, and full of some weird magic that must've come from selling his soul to the devil. He scored 19 number-one country hits, classics like "Cryin' Time", "Act Naturally" (ask Ringo), "I Got A Tiger By The Tail", etc., etc., ad infinitum. He made dozens of LPs, none of which you can hear today because his label, Capitol, was dumb enough to let him take possession of his own masters when his contract was up. He promptly locked said masterpieces in a vault, never to be heard again, although he sold about 19 million of the little doughnuts, so chances are your local used record dealer or flea market will have a decent selection.

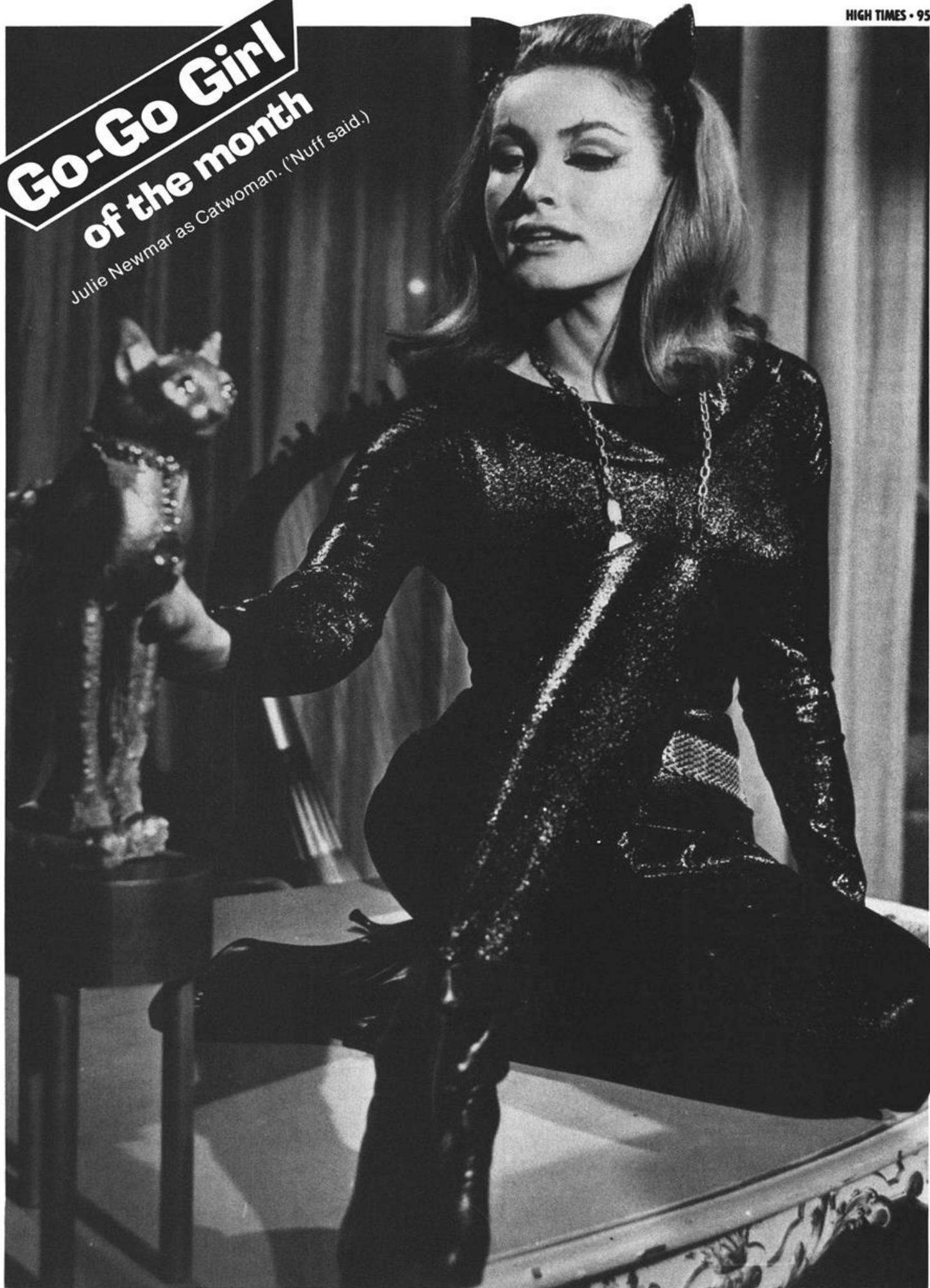
His band, the Buckaroos, were about the swingin'-est small combo you'll ever hear, mixing flat-out southwestern teeth-grinding honky-tonk with rockabilly flash for a sound as strange and beautiful as Raymond Chandler's red wind on the back of your neck. Special kudos to the late guitarist Don Rich, whose Telecaster sputterings had as much Chuck Berry influence as Keith Richards' playing did, but clean and sparkling, with notes flying all over hell and dipping in and around Buck's voice like maybe Don and Buck knew each other a little too well.

And unlike the aforementioned Stones, who reached middle age with about as much dignity as Larry Storch, Buck made his bundle (and a bundle it was, between hit discs, a publishing empire, his own booking agency and, finally, *Hee Haw*, smirk all you want, this man lives like a pasha) and got the fuck out before his head got soft in public. But not before making a complete fool of himself, like the time he divorced his wife three days after their marriage for reasons of insanity (hers) then took out an ad in the paper begging her to return. Or the time he took a solemn pledge to sing only country music, then released a fine, rocking version of Chuck Berry's "Memphis" a few weeks later. Or, or, or, or.....I'll spare you.

Yes, Bakersfield's most talented son was a motherfucker, musically and otherwise. Merle Haggard wants to be Buck so bad he co-opted his sound (the much-talked-about "Bakersfield sound" is, in reality, the Buck Owens and the Buckaroos sound) married Buck's ex-wife, hired Buck's band members, and emulates Buck's general orneriness. But Merle Haggard will always be a spotty, eccentric, second-rate talent when it comes right down to it. But Buck Owens, now there's a guy. ●

Go-Go Girl of the month

Julie Newmar as Catwoman. ('Nuff said.)



continued from
page 89



Ray Milland boozes it up.

SANDSTONE

**Directed by Jonathan and
Bunny Peters Dana 1977
(Vestron)**

A documentary "researched" in 1971, shot in 1974, and released theatrically three years later, which asks "Where did all the hippies go?" Well, they went to a Malibu retreat, stripped, had sex with strangers and "laid trips" on one another while doing a lot of soul searching. After a flabby naked man is shown mowing the lawn and watching penises and breasts dangle precariously over a bowl of potato salad during a nudist barbecue, this began to look less like a celebration of sexual alternatives than the ultimate suburban fantasy.

UNDERWORLD U.S.A.

With Cliff Robertson, Dolores Dorn, Beatrice Kay. Directed by Samuel Fuller 1961 (RCA/Columbia)

Robertson is a psychotic ex-con out to avenge his father's murder in this pulpy film noir, one of the director's most brutal pictures. The nasty violence is staged for pure visual excitement and the sex, used only to elicit information, is just as unsavory in a beautiful kind of way—the lovers' faces always seem to be covered in either scratches, bruises or dirty bandages. Next to *The Steel Helmet* (not yet available on video) and *The Naked Kiss* (about to be reissued), it's Fuller's best. Highly recommended.

TWO MULES FOR SISTER SARA

With Clint Eastwood and Shirley MacLaine. Directed by Don Siegel 1970 (MCA)

Eastwood's second film for director Siegel (preceded by *Coogan's Bluff* with *The Beguiled* and *Dirty Harry* to follow). While it's offbeat and entertaining, the remarkable cinematography by Mexico's leading cameraman Gabriel Figueroa might lead you to believe you're seeing a better film than you are. Eastwood is an American mercenary in French-occupied Mexico. With prostitute MacLaine (disguised as a nun), they travel to Chihuahua to massacre the occupants of a French garrison.

THE LOST WEEKEND

With Ray Milland, Jane Wyman, Phillip Terry, Howard Da Silva. Directed by Billy Wilder 1949 (MCA)

Lightweight lead Milland goes heavy—very heavy, like the whole movie—as a dipsy writer who pawns his typewriter to support his boozy habit. This slow and morbid drama about alcoholism was surprisingly popular in its time but today seems a little too calculated to be genuinely moving. The screenplay by Wilder and frequent collaborator Charles Brackett is customarily cruel and ironic, but there's an occasional spark of humor. Some nice location shooting in New York, specifically Bellevue hospital, where Milland ends up.

BLACK CAESAR

With Fred Williamson, Gloria Hendry, D'Urville Martin. Directed by Larry Cohen 1973 (Orion/Filmways)

AIP wanted Cohen to direct because he "knows how to direct those black actors". (Cohen had previously made *Bone a.k.a. Housewife* with "that black actor" Yaphet Kotto.) It was a good and solid start to a Blaxploitation wave

that got progressively cheaper. Williamson plays the double-crossed Godfather of Harlem and the film was so successful that the inevitable sequel had to rewrite the original's ending in which Williamson dies. That sequel *Hell Up In Harlem* and Williamson's *Bucktown U.S.A.* are also available through Orion/Filmways. Neither of these are directed by Cohen and only the latter is made notable by the appearance of Pam Grier.

KANSAS CITY CONFIDENTIAL

With John Payne, Coleen Gray, Lee Van Cleef, Neville Brand. Directed by Phil Karlson 1952 (Sinister Cinema)

One of the most interesting of Karlson's semi-documentary noirs, reversing the traditional roles of cop and con. Payne, an embittered police captain, blackmails two felons who helped him rob an armored car and through mischance implicates another con, bringing them all into a very cynical, very physical and brutal conflict in Tijuana. Karlson's later and equally vicious *Walking Tall* (1973) and *Framed* (1975), both with Joe Don Baker, are both available on video.

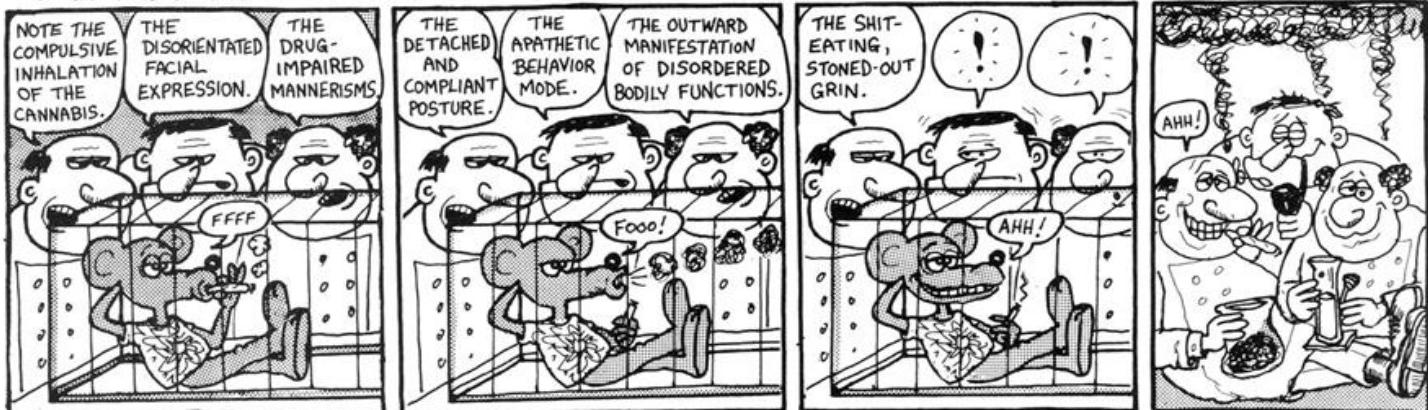
THE LAST HURRAH

With Spencer Tracy, James Gleason, John Carradine, Basil Rathbone. Directed by John Ford 1958 (RCA/Columbia)

A bit of blarney from a sentimental John Ford, but a pretty good movie for the election year. Tracy is a Boston mayor, still grounded in "the old school" of good will, decent government and just plain respecting the public. Struggling through what he knows will be his final campaign he sincerely wants to do the right thing at all times. Yet Tracy knows, and teaches his adoring nephew, that, above all, politics always has been and always will be a popularity poll and a game. Not surprisingly, Carradine and Rathbone play the baddies. ●

TWISTED IMAGE

by Ace Backwards ©1988



C'MON IN! MONSTER PLANTS HAVE TAKEN OVER! BUT IF YOU LOOK REAL CLOSE, YOU CAN STILL SEE THE HIGH TIMES TOP 100!

LAST MONTH

NOTE: THE TOP 100 IS MADE UP ENTIRELY OF YOUR VOTES, IN ORDER OF WHATEVER GOT THE MOST VOTES

1. GRATEFUL DEAD
2. PINK FLOYD
3. LSD
4. ALL BLUNTED UP, BROOKLYN STYLE
5. HASHISH
6. SEX
7. NORML
8. SHROOMS
9. LEGALIZE POT!
10. ALT. DRUGS (THIS IS FROM A NATIONAL COMPUTER MAILING LIST)
11. BONG HITS
12. BOB MARLEY AND THE WAILERS
13. THE WAILERS
14. GROWIN' YOUR OWN
15. SKUNK BUD BEER DRUGS
16. Church Lady
17. KILL Spuds Mackenzie
18. JUJIM OB
19. RUSH
20. URIAH HEEP
21. RITALIN (PSYCHOCANDY)
22. LED ZEPPELIN
23. LOVE
24. POPEYE'S ONION RINGS
25. RIKK BOUGE, WASTED-AUSTIN, TEXAS
26. ASKED
27. NITROUS HITS
28. Hydroponics
29. FRANK ZAPPA
30. GOD
31. JIMI HENDRIX
32. HARVEST TIME!
33. KELLY BUNDY (DAUGHTER FROM "MARRIED WITH CHILDREN")
34. RON PAUL FOR PRESIDENT
35. Harleys
36. MINNESOTA GRASSROOTS PARTY - VOTE THE WAY YOU SMOKE!
37. GET SMART RERUNS
38. PEOPLE WHO HATE THE DEAD NEVER REALLY LISTEN! (TIM L. INARIZ.)
39. DEATH TO SCUM WHO MAKE STRYCHINE BLOTER!
40. STINKY (MY PET SQUIRREL)
41. the YARDBIRDS
42. COUGH TO GET OFF!
43. NEVER FEAR, THE BEER'S HERE
44. THE ONLY GOOD HEAD IS A DEADHEAD!
45. HEAVY METAL SUCKS!
46. KTCV 88.1 THE HEAVY METAL STATION OF THE TRI-CITIES, WASH.
47. HONDA CB 1100 F
48. MY GUN
49. BERG'S BUD BASH HAVASU '88
50. BECOMING AN INSTANT LED ZEPPELIN FAN BY DROPPING ACID AND WATCHING "THE SONG REMAINS THE SAME."
51. THE FREAK BROTHERS
52. ALICE COOPER
53. Henry Rollins
54. BURNING ISSUES (MARIJUANA PEOPLE'S NEWSLETTER)
55. SMOKING A JOINT BEFORE GOING TO CHURCH
56. THE EAGLES
57. JUST SAY N2O
58. FILLING A PISS-TEST VIAL WITH BONGWATER
59. FOUR FOOT HIGH BAMBOO BONGS
60. PLAYING GANJA GOLF
61. LANCELOT LINK (SECRET CHIMP)
62. SEX ON ACID
63. JAMES BROWN - THE FLYING FATHER OF SOUL (TERRY HAS A BIG DICK!)
64. AEROSMITH
65. DOUBLE DIPPED YIN-YANG ACID
66. HAWKWIND (THE BEST BAND)
67. DRAGGING DEA, CAMP PATCH + ALL THEIR COMMUNIST FRIENDS TO THE WOODS AND BEATING THEM WITH CERAMIC BONGS! (HA HA!)
68. G.G. ALLIN DUH!
69. I TRULY LOVE HEIDI JO SHIELDS
70. BULLWINKLE
71. CHARLENE, MOONLIT CAMPING, POT + BEER, AND CAMPFIRES
72. THE GIRL WHO TURNS INTO A BLUEBERRY
73. HERB CLOUDS, NOT MUSHROOM CLOUDS
74. BERG'S BUD BASH HAVASU '88
75. SUING THE IRVINE POLICE DEPARTMENT AND WINNING!
76. THE YEAR 1962
77. TWILIGHT ZONED
78. GALLAGHER FOR PRESIDENT (YOU-KNOW-SLEDGE-O-MATIC!)
79. SPUDS MACKENZIE
80. LAKE SHORE DRIVE
81. KING CRIMSON
82. PEACE TALKS (A WHOLE BUNCH OF SHIT!)
83. BUDDY GUY
84. GIVING COPS THE "BRUSH-OFF" WHEN YOU KNOW YOUR CAR IS "CLEAN."
85. archaeology
86. WATCH MY TV MELT
87. TWAT BURGERS
88. ESP (EVERYBODY SMOKES POT)
89. KAREN LOVES TERRY (TERRY HAS A BIG DICK!)
90. JESUS CHRIST
91. HAND ON WEENIE ROTATIONS
92. NANCY REAGAN DRESSED IN ROBIN, THE BOY WONDER'S OUTFIT, TRES CHIC, NON?
93. REPTILES
94. DOING LIQUID DOSES AT THE WEST LIBERTY BAND BLAST
95. HOWARD STERN
96. BEVERLY HILLS TEEN (CARTOON)
97. RON SELLS CRACK TO FIND THE CONTRAS
98. GREEN WACKY TOBACKY
99. THE TOP 100? I READ IT, BUT I DON'T PAY ATTENTION TO THE NUMBERS!
100. I DON'T EVEN PAY ATTENTION TO THE LIST - I READ THE TOP 100 UPSIDE DOWN, MYSELF!

THESE PLANTS MAKE EVERYTHING SO PEACEFUL!

CHART COMPILED AND DRAWN BY JOHN HOLMSTROM

NORMLTHON UPDATE!

WELL, THE LAST FEW CHECKS + MONEY ORDERS HAVE COME IN, AND WELL SOON DO THE FINAL MONEY COUNT. WE'RE ALSO PLANNING NEXT YEAR'S NORMLTHON - JUST WAIT 'TIL NEXT YEAR'S APRIL FOOL'S ISSUE - YOU WON'T BELIEVE IT! FINAL TALLY WILL APPEAR IN THE DECEMBER 1988 ISSUE!

#1

#2

#3

HEY! YOU! SEND YOUR CHOICES FOR THE TOP 100 IN TO: THE HIGH TIMES 211 E. 43rd St. NYC, NY 10017

DANSCO

INDOOR
GARDEN
CENTERS

One stop shopping

■ LIGHTING SYSTEMS

(all systems are completely wired with quiet, ventilated ballast enclosure and quick-disconnect lamp lead)
2 year ballast warranty and 1 year lamp warranty

1000W Metal Halide	189.00
(Superbulb)	
400W Metal Halide	139.00
(Superbulb)	
Metal Halide Phosphor	
Coated Bulbs	add 5.00
175W Metal Halide	110.00
1000W High Pressure Sodium	259.00
400W High Pressure Sodium	189.00
150W High Pressure Sodium	110.00
Horizontal or Parabolic Reflectors for	
1000W Systems add \$10.00 &	
for 400W Systems add \$20.00	

■ BULBS

1 year lamp warranty

METAL HALIDE:

MS1000, 125,000 lumens

MS1000 Hor., 125,000 lumens,

 horizontal

MS400, 40,000 lumens

MS400 Hor., 40,000 lumens,

 horizontal

Metal Halide Phosphor

 Coated Bulbs

 add 5.00

M175, 15,000 lumens

29.00

HIGH PRESSURE SODIUM:

LU1000, 140,000 lumens

LU400, 50,000 lumens

LU150, 16,000 lumens

32.00

HIGH PRESSURE SODIUM CONVERSION:

940W, 140,000 lumens

360W, 50,000 lumens

69.00

FLUORESCENT TUBES:

24" Gro Lux

24" Vita Lite

48" Gro Lux

48" Vita Lite, Power Twist

13.95

■ EBB-FLOW SYSTEM \$39.00/Module*



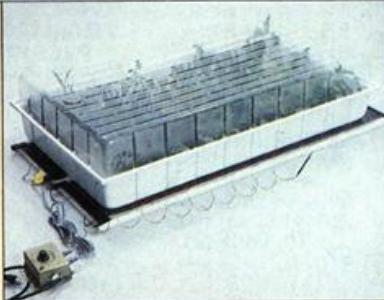
Includes: 44" x 24" Tray & Irrigation System

*Benching, Pump, Timer & Reservoir purchased separately)



With 10 years in business we have the experience to anticipate our customers' needs. Most orders shipped within 24 hours.

VISA, MC, Amex, COD orders welcome.



PROFESSIONAL PROPAGATION SYSTEM
\$169.00

Includes: 1 - 44" x 24" x 11" Propagation Dome, 2 Pro Heat Mats, Thermostat w/ Remote Probe & 1qt Cloning Solution

■ REFLECTORS

(Polar white finish on all, sockets included)

22" Round	24.95
44" Conical	39.95
48" Parabolic	54.95
84" Parabolic	169.95
Horizontal HPS	49.95
Horizontal MH	54.95

■ LIGHT MOVERS

4" Light Track	99.00
6" Light Track	99.00
1LS Sun Circle	139.00
2LS Sun Circle	199.00
3LS Sun Circle	259.00

■ HYDROPONICS

HYDRO-FLO I

265.00

Incl: 6 trays, 36 one gallon pots, reservoir, pump, timer, filter, irrigation, rockwool, nutrients & pH Control

Expansion Module

16.00

HYDRO CELL II

250.00

Incl: 12 two gallon cells, reservoir, pump, timer, filter, irrigation, rockwool, nutrients & pH Control

Expansion Cell

6.00

■ TEST EQUIPMENT

Digital pH Pen

59.95

Digital Dissolved Salts Pen

59.95

Combination pH &

 Dissolved Salts Meter

399.00

Professional Digital Light

 Meter

175.00

CO₂ Tester

8.95

CO₂ Analyzer Tubes

4.50

MIN-MAX Thermometer

12.95

Temperature Humidity Gauge

12.95

30x Light Scope

26.95

100x Light Scope

49.95

■ CO₂ SYSTEMS

Injection System, w/o tank

179.00

Injection System w/ exhaust control,

 w/o tank

279.00

CO₂ Regulator/Flow Meter

79.95

DANSCO Propane Burner/

 CO₂ Generator

269.00

Johnson Propane Burner/

 CO₂ Generator

499.00

■ ODOR CONTROL

Zestron 700 Ionizer

79.95

Zestron 1000 Ionizer

79.95

Zestron Collector Ionizer

110.00

Zestron 3600 Ionizer

320.00

DANSCO Charcoal Air Filter

79.95

Ozone Generator for total

 odor removal

839.00

■ TIMERS

15A 120V, 24hr, Heavy Duty

19.95

15A 240V, 24hr, Heavy Duty

24.95

40A 120V, 24hr, Industrial

33.95

40A 240V, 24hr, Industrial

38.95

40A 120V, 1-60 minute cycle

67.95

15A 120V, 4 ON - 4 OFF,

 1 minute min.

26.95

■ FANS & BLOWERS

100 CFM Axial Fan

25.95

240 CFM Axial Fan

57.95

560 CFM Axial Fan

68.95

60 CFM, Squirrel Cage

33.95

100 CFM, Squirrel Cage

38.95

140 CFM, Squirrel Cage

40.95

265 CFM, Squirrel Cage

49.95

465 CFM, Squirrel Cage

61.95

745 CFM, Squirrel Cage

128.95

980 CFM, Squirrel Cage

122.95

1450 CFM, Squirrel Cage

151.95

300 CFM, Duct Fan

44.95

425 CFM, Duct Fan

47.95

660 CFM, Duct Fan

51.95

9" Oscillating Table Fan

24.95

12" Oscillating Table Fan

33.95

16" Oscillating Table Fan

48.95

9" Wall Mount Fan

48.95

12" Wall Mount Fan

52.95

16" Wall Mount Fan

59.95

■ THERMOSTATS & HUMIDISTATS

Thermostat, heating or

 cooling

19.95

Thermostat, heating or cooling w/

 remote probe

34.95

Humidistat 40 - 90%

47.95

Combo Thermostat-Humidistat Fan

 Controller completely wired with

 2 outlets

109.95

■ SUBMERSIBLE PUMPS

120 GPH

36.95

140 GPH

38.95

170 GPH

39.95

205 GPH w/ float control

59.95

240 GPH

47.95

1250 GPH

67.95

■ PROPAGATION AIDS

24" x 44" x 11" Propagation

Dome

49.95

48" x 11" Pro-Heat Tape

21.95

Thermostat w/ remote

probe ± 1°

69.95

Woods Rooting Compound

7.95

Rootone F, 2oz

4.49

Olivia's Cloning Solution, 1 qt

11.95

Olivia's Cloning Solution, 1 gal

39.95

■ ROCKWOOL

1 1/4 x 1 1/4 Multi-Blocks

.07

2 x 2 Multi-Blocks

.10

3 x 3 Cube

.34

4 x 4 Cube

.48

6" x 3' Slab

.475

8" x 3' Slab

.625

12" x 3' Slab

.950

45lb Repellent Bale

28.50

35lb Absorbant Bale

22.00

55lb Absorbant Bale

49.00

Full case discount of 10% on

Rockwool products

■ REFLECTANTS

4' x 25' Mylar

17.95

4' x 50' Mylar

27.95

4' x 100' Mylar

44.95

20'

**GET THINGS
GOING WITH**

BEFORE!



**NOT
SURE?
SAMPLE
PACK**

MAXI PACK
1000 TABLETS
& CAPSULES
TOTAL / 10 TYPES
\$42.50
#26

MINI PACK
500 TABLETS &
CAPSULES
TOTAL / 5 TYPES
\$22.50
#31
INGREDIENTS MAY VARY

EXTRA STRENGTH
1000 / 100
\$28.50 / \$6.50
CODE #3
300 MGS CAFFEINE

EXTRA STRENGTH
1000 / 100
\$28.50 / \$6.50
CODE #4
325 MGS CAFFEINE

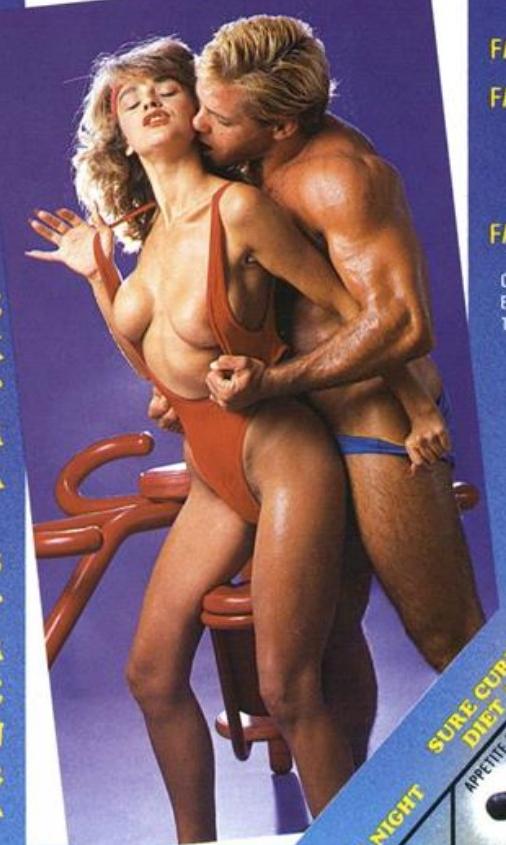
EXTRA STRENGTH
1000 / 100
\$32.50 / \$7.50
CODE #8
357 MGS CAFFEINE

EXTRA STRENGTH
1000 / 100
\$28.50 / \$6.50
CODE #20
325 MGS CAFFEINE

NOTE

Our products bear our trademark. They cannot be confused with any other product on the market. Any attempts to offer these products for sale as a controlled substance or prescription drug may be a crime. This may result in criminal prosecution. Compliance with any law is the purchasers responsibility.

AFTER!



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(813) 527-9977**

PAYMENT:

- CHARGE CARD (\$10 min.)
 - MONEY ORDER
 - PERSONAL CHECK (MUST BE BANK PRINTED WITH THE SHIP TO ADDRESS. ACCOUNT MUST BE 6 MONTHS OLD, NO CHECKS OVER \$50.00)
 - PAYMENT TO 20TH CENTURY DISTRIBUTORS)
 - C.O.D. (CASH ON DELIVERY) (PHONE IN ONLY) \$10.00 min.
 - ALL ORDERS IN US FUNDS
- Offers subject to change without notice. Take only as directed. Read all package statements, no sales to minors or where prohibited by law. The advertised products have various levels of non-controlled ingredients. O.T.C.'s Not to be Mixed with Alcohol.

FAST ONES

STIMULANTS DIET AIDS SLEEPING AIDS

LOWEST PRICES ANYWHERE
WE WILL MEET OR BEAT ANY
REASONABLE PRICES BY 10%
ORDERS SHIPPED IN 24 HOURS
100% GUARANTEE

FAST ONES™
"Super Strength"
SPECIAL PRICE
1000 / 100
\$30.00 / \$6.50

FASTONES

"FREE SAMPLES"
CODE
#30
350 MGS CAFFEINE

1000 / 100
\$22.50 / \$5.50
CODE #1
250 MGS CAFFEINE

1000 / 100
\$22.50 / \$5.50
CODE #1
250 MGS CAFFEINE

1000 / 100
\$22.50 / \$6.50
CODE #5
225 MGS CAFFEINE

1000 / 100
\$22.50 / \$6.50
CODE #5
225 MGS CAFFEINE

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FAST ONES FIGHTS THAT DROWSY FEELING BY IMPROVING YOUR STAMINA, COORDINATION, CONCENTRATION!

FAST ONES NEVER LETS YOU MISS THOSE SPECIAL MOMENTS!

FAST ONES GIVES YOU EXTRA STAMINA TO LOSE THOSE UNWANTED POUNDS AND INCHES THAT MAKE YOU FEEL SO UNATTRACTIVE AND UNDESIRABLE!

FAST ONES LETS YOU LIVE A MORE EXPERIENCING LIFE!

CHOOSE FROM A WIDE VARIETY TO GET YOUR EXACT TYPE AND STRENGTH YOU PREFER. THAT'S SOMETHING STORES CAN'T DO!

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**MILD
(THICK)**

**CLEAR UPS
(THIN)**

NIGHTY NIGHT
DIET AID
APPETITE SUPPRESSANT

**RUSH ORDER TO:
20th Century Dist.
Box 28336
St. Petersburg, FL 33709**

**1000 / 100
\$35.00 / \$9.95
(TIME RELEASED)**

**50 MGS
DIPHENHYDRAMINE
CODE #25**

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\$17.95 / \$6.50
CODE #10
25 MGS EPHERDRINE**

**1000 / 100
\$17.95 / \$6.50
CODE #9
85 MGS CAFFEINE**

**1000 / 100
\$17.95 / \$6.50
CODE #9
85 MGS CAFFEINE**

**1000 / 100
\$17.95 / \$6.50
CODE #9
85 MGS CAFFEINE**

**1000 / 100
\$17.95 / \$6.50
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85 MGS CAFFEINE**

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\$17.95 / \$6.50
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85 MGS CAFFEINE**

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85 MGS CAFFEINE**

(ORDER FORM)

PRODUCT NUMBER
ECONOMY SIZE 1000
QUANTITY

EXP.

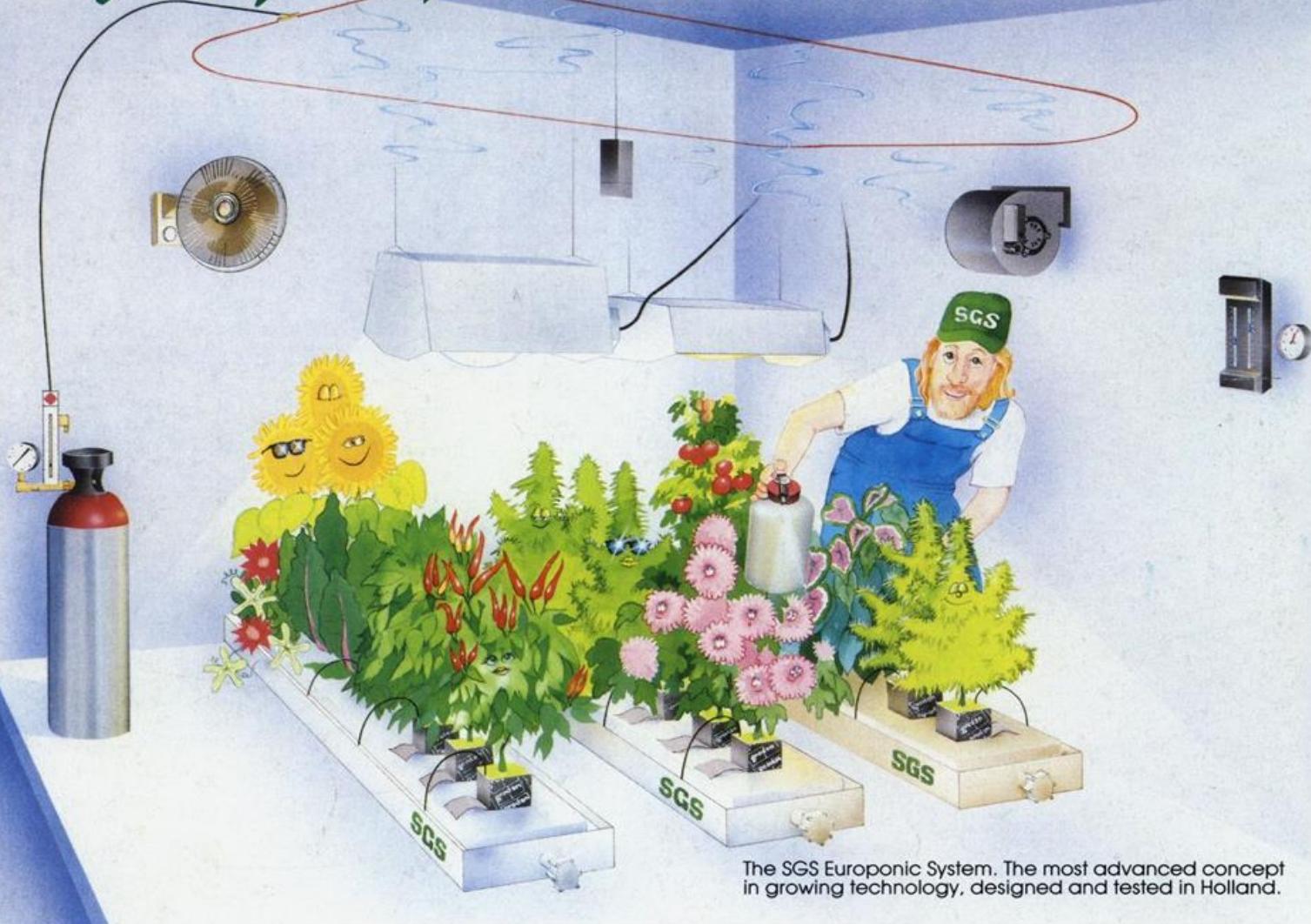
PLEASE PRINT

SEND ORDER TO:
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Address _____
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CHECK ONE: □ Visa □ MC □ _____
Signature _____

Sub Total _____
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Shipping _____
Total _____

Give your plants a "dutch treat"!



The SGS Europonic System. The most advanced concept in growing technology, designed and tested in Holland.

WE ARE DEDICATED TO THE INDOOR GARDENER. SGS IS YOUR CONNECTION WITH STATE OF THE ART DUTCH GROWING TECHNOLOGY.

• 400 W AND 1000 W METAL HALIDE AND HIGH PRESSURE SODIUM LAMPS • VERTICAL AND HORIZONTAL REFLECTORS • SGS EUROPONIC ROCKWOOL SYSTEM • THE GASSEER CO₂ SYSTEM • ALUMINUM CO₂ CYLINDERS • SOLAR SHUTTLE AND WHIRLIGIG LIGHT MOVERS • ZESTRON NEGATIVE ION GENERATORS • KLONE KITS • GRODAN ROCKWOOL CUBES, BLOCKS AND SLABS • A COMPLETE LINE OF HYDROPONIC SUPPLIES INCLUDING FERTILIZERS, PH ADJUSTMENT CHEMICALS, PH TEST KITS, MICRO & MACRO NUTRIENT TEST KITS • RESERVOIR HEATERS • BAT GUANO • WORM CASTINGS • MAXICROP SEAWEED CONCENTRATE • SOILLESS GROWING MEDIUMS • WHITE PLASTIC AND REFLECTIVE MYLAR SHEETING • PURGE ODOR NEUTRALIZER • OSCILLATING AND EXHAUST FANS • TIMERS • AND MUCH, MUCH MORE.

CALL OR WRITE TODAY FOR A FREE COPY OF OUR NEWEST CATALOG. YOU WILL FIND OUR SERVICE PROMPT AND OUR PRICES LOW! WE OFFER THE BEST GUARANTEE IN THE BUSINESS. MORE THAN JUST A NAME, WE ARE SUPERIOR GROWERS.

SGS

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EAST LANSING, MI 48823

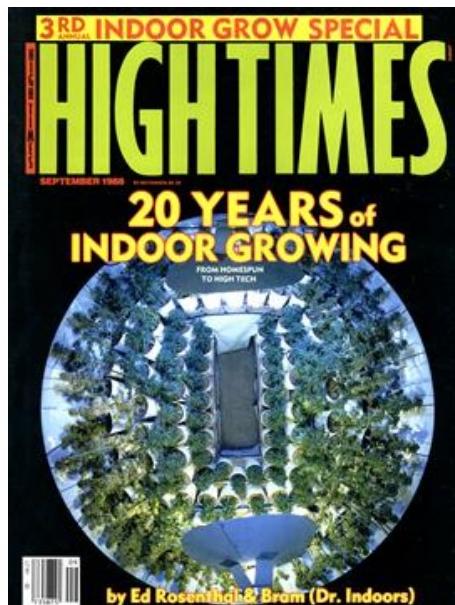
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High Times

SEPTEMBER 1988



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